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ORIGINAL ARTICLES

SPLENIC ANEMIA—ANEMIA WITH ENLARGEMENT OF THE SPLEEN.*

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THE occurrence of a symptom-complex characterized especially by grave and progressive anemia and enlargement of the spleen, but unassociated with leucocytosis or enlargement of the lymphatic glands, has been recognized for a long time. The first undoubted case of this nature was probably described by Woillez,¹ in 1856. A case of a similar affection in a child, aged ten months, was reported in 1866 by Gretzel² from Griesinger's clinic. The attention of the profession in this country was first directed to the subject in 1871 by H. C. Wood,³ who described the disorder as the splenic form of pseudoleucemia. To Banti,⁴ in particular, however, is due the credit of having directed renewed attention to the occurrence of the disease in 1883; and to the recent publication of more exhaustive articles by Bruhl,⁵ West,⁶ Sippy,⁷ and Osler⁸ is attributable the fact that the profession is now tolerably familiar with the chief clinical characteristics of the disorder.

This symptom-complex of progressive anemia with enlargement of the spleen has been described under a variety of names, such as splenic cachexia, splenic anemia (Griesinger and Banti), primitive splenomegaly (Debove⁹ and Bruhl), idiopathic hypertrophy of the spleen without leucocytopenia (Gaucher¹⁰), and the like. The designation splenic anemia has been employed by most of the recent writers on the subject, such as West, Taylor,¹¹ Coles,¹² Osler, Morse,¹³ Jackson,¹⁴ Stengel,¹⁵ and others. The majority of these authors, however, have adopted splenic anemia as a convenient temporary designation to indicate the principal clinical features of a morbid condition the nature of which is not understood, and concerning the independent existence of which, as a clinical entity, considerable doubt has been expressed. On the other hand, Sippy who, recently reporting a personal observation, contributed also a most thorough review of the literature of the subject prefers the designation splenic pseudoleucemia, as does also Cabot.¹⁶ Inasmuch, then, as the nature of the disease is little understood, and as the number of reported cases is small, it may not be unprofitable to add another. My case is as follows:

M. E. K., single, white, female, aged twenty-

two years, and a native of the United States, was first seen by me in private practice, February 2, 1900. The following history was elicited: Her father died in middle-life after an operation for the cure of an ischiorectal abscess. He was in good health until one year prior to his death, when he suffered from a disorder of the ischiorectal region. Under medicinal treatment he recovered and resumed work. In a short time he was again attacked, was compelled to submit to operation, and died soon afterward. The patient's mother is living and well. Of seven brothers and sisters, one brother died following an operation for the cure of appendicitis, and five others died of causes not ascertainable. One brother is living and well. Aside from the fatal affection of the father, there was no history of tuberculosis, carcinoma, or other serious complaint in the family.

The patient herself during childhood had measles, chicken-pox, pertussis and pneumonia, the last named at the age of seven years. After this illness she remained in good health until she was seventeen years of age, when she contracted acute inflammatory rheumatism. The joint lesions were migratory and most of the larger joints were more or less involved. After about six weeks she made a good recovery, but subsequently she had several minor attacks. Menstruating first at the age of fifteen years, her periods were always regular and painless until January, 1900. The flow usually lasted three or four days and was generally rather profuse. She has always lived in Philadelphia and has never had malaria.

The patient, though never robust, remained in good health, working steadily as a clerk until May 13, 1899, when she was compelled to cease work. For about a week prior to this date she had been feeling badly—complaining of a cold. She was tired, somnolent and weak; the slightest exertion exhausted her and her appetite failed. Despite intermittent medical attention, she remained in about this condition throughout the summer of 1899, but during the fall she improved a little. Toward the end of the summer she sustained a fall. To the effects of this was attributed a rather severe pain in the left side in the region of the spleen that came on for the first time during September and continued for several weeks. A number of minor attacks of pain in the same region occurred at intervals subsequently and were the cause of great anxiety on the part of the patient and her mother. Toward Christmas, 1899, the patient's general health grew worse; palpitation of the heart and dyspnea supervened, both were much aggravated on exertion, and the patient was obliged to take to bed. A few days later there developed an attack

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of what was said to have been rheumatism in the right hip. The pain and tenderness on motion of the joint continued for about five weeks. In January, 1900, there occurred suddenly a severe hemorrhage from the genitals, it being reported that at least a quart of blood was lost. The bleeding did not continue more than twenty-four hours, and the patient menstruated regularly at the end of a week. Aside from this there had been no hemorrhages whatever—no nose-bleed, no expectoration nor vomiting of blood, no passage of blood by the bowel and no suspicious alterations in the urine.

At the time of first observation the patient complained of extreme asthenia, palpitation of the heart, dyspnea, lack of appetite, some epigastric distress after eating, and marked constipation. The dyspnea was more or less constant and was much aggravated by any exertion, talking for instance. In addition, she had now and then slight headache and some vertigo. She had been continuously in bed since Christmas, and she was quite irritable, nervous, and impatient at her slow recovery (I being her third physician). The pain in the right hip was almost entirely gone.

Examination showed the patient to be a slight, fragile, poorly-developed girl, with slender, bony framework, and soft, flabby musculature. Though the patient had never been very robust nor rotund there was evident a moderate degree of emaciation. The skin and visible mucous membranes were quite pale, but the latter were not pigmented. However, the skin, particularly that of the backs of the hands, forearms, and chest revealed a number of mole-like spots of pigmentation. These varied somewhat in size, the average size being about that of a split pea; they were quite dark, circumscribed, not elevated, and contained no excess of hairs. The patient thought that she had had most of them as long as she could remember, but she was inclined to believe, possibly upon suggestion, that they had become more numerous since her first attack of rheumatism at the age of seventeen years. There was no diffuse pigmentation; neither was there any cyanosis, edema, enlargement of the superficial lymphatic glands or tenderness over the sternum or along any of the long bones. The neck was long and thin and revealed pulsation of the veins on both sides. These were more marked on the right side and were evidently false venous pulsations transmitted from the underlying arteries. The chest was comparatively long, of poor anteroposterior diameter, and narrow. Physical exploration of the lungs showed them to be normal. The apex beat of the heart was in the fifth interspace just within the nipple line. No thrill was palpable. The superficial cardiac dulness was irregularly triangular in outline. It extended upward to the top of the fourth rib where it joined the sternum; to the right, just a trifle to the right of the left edge of the sternum; and, to the left, to the position of the apex beat. The heart's action was

regular and the sounds were normal. Toward the base of the heart, however, there was faintly audible a blowing systolic murmur. This seemed to have its point of maximum intensity toward the pulmonary region, but it could be heard also over the fourth rib midway between the sternum and the nipple. The pulmonary second sound of the heart was short and valvular, but considering the thinness of the chest wall, it did not seem unduly accentuated. The liver dulness extended in the nipple line from the top of the sixth rib to the free margin of the ribs; the organ itself was not palpable. The splenic dulness extended in the midaxillary line from the eighth interspace to two fingers' breadth below the free margin of the ribs and anteriorly about the same distance beyond the ribs. The organ was distinctly palpable. It was hard and regular in outline, and the notch could be distinctly made out. The region was slightly tender to palpation. Examination of the abdomen was otherwise negative; in particular, there was no ascites. The patient's temperature was 103.5° F.; her pulse-rate 100—the pulse itself soft and compressible; and her respirations were 24 per minute. Inquiry at this time elicited the fact that she had had fever for six weeks (the time during which she had been in bed). I subsequently learned from the physician who had been in attendance prior to me that she had had fever, varying from 102° to 103° F. and over, and enlarged spleen for four weeks (the time during which he had been in attendance).

The patient's urine was examined February 4th, with the following result: Specific gravity 1017, acid in reaction, no albumin and no sugar; microscopically there were no casts but a considerable deposit of urates. Examination of the genitals failed to reveal any pathologic condition.

She was advised to remain in bed and was encouraged to drink largely of milk which she had previously absolutely refused. Constipation, which had been obstinate, was gradually overcome by cascara sagrada, salines, and enemas when necessary. Later, when the dietary was increased, fruits subserved the same purpose. She was given tincture of nux vomica, fifteen drops three times a day. Her blood was examined February 14th with the following result: Hemoglobin 50 per cent., erythrocytes 3,200,000, leucocytes 8200, color index of the erythrocytes 0.78. The erythrocytes were pale, but no abnormal forms were seen. Differential count of the leucocytes revealed the following: Small mononuclears 13 per cent., large mononuclears 7 per cent., transitionals 3 per cent., polynuclear neutrophiles 75 per cent., and eosinophiles 2 per cent. At the end of three weeks the constipation was finally overcome and did not recur. The bowels were moved once daily until about April 15th, when diarrhea set in. This was of moderate severity and entirely independent of any discoverable cause. It persisted for several days and then ceased. Later,

however, there occurred a number of other attacks of varying severity. Although it had been learned from the physician previously in attendance that five drops of Fowler's solution had been followed by manifestations of intolerance, it was determined on February 24th to try this again, and it was commenced in three-drop doses three times a day. At the same time Blaud's pills also were given—five grains three times a day. The *nux vomica* was continued. One week later the dose of Fowler's solution was increased one drop three times a day every four days, and a raw egg and a half ounce of Sherry wine were added to a glass of milk twice a day. Blaud's pills were increased to ten grains three times a day.

By April 1st her general condition had improved materially; but on this date she contracted an attack of acute articular rheumatism in the right wrist; there was also a little pain and tenderness in the left ankle, but no swelling. The attack subsided under salicylates in about eight days. From the first time that I saw the patient until the day of the onset of the attack of rheumatism, her fever had always been 102° to 103° or 103.5° F., in the evening. On two occasions it was 104° F. It was not increased during the attack of rheumatism. After the subsidence of the latter Fowler's solution and Blaud's pills, which had been temporarily withheld, were resumed. During the last week in April she suddenly at night suffered a most acute pain in the region of the spleen, accompanied by marked prostration, almost collapse. The region of the spleen was excessively tender and the spleen itself seemed to have increased a little in size—it extended beyond the free margin of the ribs almost if not quite three fingers' breadth. Over the spleen a friction fremitus was slightly palpable and distinctly audible. It was much augmented, as was also the pain, by rapid and deep respirations. At the end of four days she had recovered her former fair general condition, but the tenderness in the region of the spleen persisted for a couple of weeks. Later there occurred a number of similar attacks of pain in this region, but none of the severity of the one just mentioned. They were interpreted as attacks of perisplenitis. By May 15th she was taking 10 drops of Fowler's solution three times a day without manifestations of intolerance, and she had so far improved as to be able to get out of bed. This she was encouraged to do, as well as to drink liberally of milk and to partake of a more extended diet, including meat. This she rather objected to, but with encouragement she managed to take a little meat at least once in four or five days of every week. Sweatings, which on a number of occasions during the latter part of March and the whole of April had been profuse, ceased almost entirely. At this time (May 15th) examination of her blood revealed the following: Hemoglobin 60 per cent., erythrocytes 3,800,000, leucocytes 6700, color-index of the erythrocytes 0.78. The red corpuscles

were pale, but no abnormal forms were detected. The differential count of the leucocytes was as follows: Small mononuclears 19 per cent., large mononuclears 6 per cent., transitorials 4 per cent., polynuclear neutrophiles 70 per cent., and eosinophiles 1 per cent. During the third week in May the patient surprised us by going downstairs by herself unannounced. Fever had continued and ranged between 100° and 103° F.; on several occasions it reached 104° F. On one or two occasions it was but 99° F. in the late afternoon. While she was not advised to go downstairs, she was permitted to do so on several occasions, and twice she rode in the park in a carriage. She was rather encouraged to go from her bed-room to an adjoining room and to sit in the sunshine as much as possible. Her condition at this time, while not reassuring, was satisfactory. So much so that the question of operative intervention for the removal of the spleen, a subject which had been broached before, was again presented to the patient and her mother. Its possibilities and dangers were adequately explained. In view, however, of the unfortunate outcome of operative work on the persons of the father and son, removal of the spleen, which was not urged by me, was positively declined. Toward the end of May the general condition of the patient began to grow worse, and by the first week in June it became apparent that the fatal termination was but a question of a short time. Her weakness grew manifestly worse, as did also her breathlessness and palpitation of the heart. Indeed, the dyspnea was such an obtrusive symptom of the disease that, together with the increasing anemia and enlargement of the spleen, it may be said to have dominated the clinical picture. Her appetite became capricious and varied considerably. Attacks of diarrhea, which of late had become more frequent, now became also more severe and protracted. Examination of the blood revealed the following: Hemoglobin 33 per cent., erythrocytes 3,070,000, leucocytes 6300, color-index of erythrocytes 0.54. The erythrocytes were quite pale, many of them exceedingly so; there was considerable variation in their size, and a few of them were more or less distorted. In an examination of seven cover-slip preparations two erythroblasts (normoblasts) were seen; one of them had a double nucleus. The differential count of the leucocytes was as follows: Small mononuclears 7 per cent., large mononuclears 5 per cent., transitorials 2 per cent., polynuclear neutrophiles 85 per cent., and eosinophiles 1 per cent. With continued fever, increasing pallor and exhaustion, dyspnea and palpitation of the heart, both of which latter became much aggravated in paroxysms at night, the patient finally died June 19, 1900. With the single exception that the systolic murmur over the body of the heart had become louder, the physical signs had not varied appreciably from those already noted. The urine had remained as already stated. The blood condition had evidently become worse,

but another examination was not made. A necropsy was not permitted.

The establishment of the diagnosis in the case presented certain features of interest. It is reported that the physician first in attendance was inclined to the diagnosis of typhoid fever. There can be little question that in the early days of the patient's illness in bed this was not altogether an unpardonable mistake. The physician second in attendance, as the case progressed, became more and more inclined to the diagnosis of splenic anemia, and by the time I was in attendance the supposition of typhoid fever could be no longer entertained. It is interesting in passing to note that during January the patient's blood yielded a positive Gruber-Widal reaction by the dried-blood method and a dilution approximating 1 to 10. With higher dilutions, however, the response was negative. On two subsequent occasions the reaction was negative with dilutions approximating 1 to 10 as well as with higher dilutions.

It was a matter of comparative ease to exclude certain diseases associated with enlargement of the spleen, such, for instance, as echinococcus disease, tumor formation, amyloid disease, malaria, and cirrhosis of the liver. The enlargement of the spleen being uniform and firm was not of the variety we usually associate with echinococcus disease and tumor formation, and the course of the affection, as well as the general symptoms, readily served to exclude both of these affections. There was no cause for amyloid disease, neither were there any of the clinical manifestations of amyloid disease of any of the other organs. There was no history of past malaria, nor any evidence of present malaria. There was no ascites or other evidence of cirrhosis of the liver. Nor was there warrant for the supposition of the existence of Banti's disease—enlarged spleen, anemia, and cirrhosis of the liver. In regard to this affection described under his name, Banti admits the possibility of it being a late stage of splenic anemia, but he states that there is proof neither for or against such a supposition. He thinks that the two diseases may be distinct from the fact that in the late stage of splenic anemia, even if long continued, there occurs no macroscopic evidence of cirrhosis of the liver, whereas in his affection, splenomegaly with liver cirrhosis, the alterations in the liver are always present even if the disorder be of short duration.

From the first the disease impressed me as being either splenic anemia, splenomedullary leucemia, or some form of sepsis, more particularly ulcerative endocarditis. It seemed necessary, however, to exclude also passive congestive enlargement of the spleen and pernicious anemia. It was all the more important to exclude enlargement of the spleen, the result of passive congestion, because the patient had had several attacks of acute articular rheumatism, and because she presented a systolic murmur and the physical signs of enlargement of the heart. Aside

from the dyspnea and palpitation of the heart on exertion the patient exhibited no signs of failing cardiac compensation. There was anemia rather than cyanosis of the skin and visible mucous membranes, there was no edema, and there were no evidences of congestion of the liver, kidneys, or lungs. The murmur was hardly of the character of that usually heard in mitral incompetency nor was its point of maximum intensity at or near the apex. It was borne in mind, however, that the murmur of mitral incompetency is sometimes heard best toward the pulmonary region. As further tending to disprove the existence of a lesion of the mitral valve, there was no marked accentuation of the pulmonary second sound. That a mitral insufficiency did not exist, I am not prepared to state; but I believe, on the contrary, that the murmur was correctly referred to the anemia, and the enlargement of the heart to a dilatation, also the consequence of the anemia. To this dilatation of the heart and the anemia were in turn attributed the dyspnea and palpitation of the heart. Whether or not a mitral incompetency also existed, the enlargement of the spleen was certainly not the consequence of passive congestion.

Pernicious anemia was excluded on account of the enlargement of the spleen and the condition of the blood. Enlargement of the spleen, though it does occur in pernicious anemia, is rarely if ever as great as that commonly found in splenic anemia. The deficiency of the individual red corpuscles in hemoglobin, the absence of marked variation in the size of the erythrocytes, the absence of microcytes and macrocytes, and the presence of but very few erythroblasts served also to exclude this condition. It may be remarked, however, that splenic anemia is a form of pernicious anemia, in that it is progressive and fatal. It may be also that future studies will indicate that in nature it is not wholly unlike the condition to which we now apply the designation progressive pernicious anemia. At present, though, there is little evidence to warrant such a supposition.

That the disorder in my patient was not leucemia was immediately evident at the first examination of the blood. The absence of leucocytosis seemed also to settle conclusively the question of sepsis or ulcerative endocarditis. Despite this, however, for a time I could not rid myself of the idea of the possible existence of ulcerative endocarditis. This was not unlikely due to the fact that during the previous winter I had had the opportunity to observe in the medical wards of the Hospital of the University of Pennsylvania, in the service of Dr. Musser, two cases of ulcerative endocarditis; I had lately performed a necropsy at the German Hospital on the subject dead of the same disease; and I had under my charge in private practice a girl of whose condition I had made a like diagnosis. The subject was therefore uppermost in mind. Several enumerations of the leucocytes alone, however, revealed the continued absence of

leucocytosis; the patient's general condition was hardly of the profound septic character that we associate with ulcerative endocarditis; there occurred no evidences of infarction of either the brain, spleen, kidneys, skin, mucous membranes, retina, or other portions of the body; there developed no roseola, erythema, urticaria, nor swellings of the joints, aside from the later attack of rheumatism in the wrist; there was no irregularity of the action of the heart; and, finally, the manifestations on the part of the heart were adequately explained as already narrated.

It seems to me, in the absence of the confirmative testimony of a necropsy, that the diagnosis of splenic anemia was justified from the absence of etiologic factor; the course of the affection, the enlargement of the spleen, the profound and progressive anemia of chlorotic type, the absence of leucocytosis, the absence of enlargement of the lymphatic glands, the pain and tenderness in the region of the spleen, associated on one occasion with palpable and audible frictions, and attributed to attacks of perisplenitis, the genital hemorrhage, the dyspnea, the diarrhea, the asthenia, the fever, and the moderate duration of the disorder.

There are several of the clinical features of the affection that merit a word in passing. In the first place it is of interest that the disease occurred in a girl. Of Osler's 15 cases, 12 occurred in males, and but 3 in females. Of West's 24 cases, 19 occurred in males, and but 5 in females. It is worth noting also that my patient was twenty-two years of age. With the exception of one, a girl aged eleven years, all of Osler's patients were over thirty-five years of age. Of 22 of West's patients, 13 were between the ages of twenty and fifty years. We may thus assume that the disease occurs with almost equal frequency throughout all periods of life. That a disease that bears at least a superficial clinical resemblance to splenic anemia occurs in children, even infants, cannot be doubted. Although the nature of the disorder as it occurs in children is as little understood as is its counterpart in adults, it seems not altogether unlikely that the two affections are dissimilar. It is well, however, not to confound the infantile pseudoleucemia of Von Jaksch with this condition; in the former there occurs a leucocytosis which is not present in splenic anemia.

The absence of enlargement of the lymphatic glands in my patient is but a clinical observation based upon an examination of the superficial lymphatics alone. Whether any of the deep lymphatics were enlarged, I am unprepared to state—lacking the testimony of a necropsy. It seems that in several of the cases that have gone to necropsy, slight or moderate enlargement of the retroperitoneal, mesenteric, and other glands has been found. It would appear from this that there is at least a little reason for the supposition advanced by some observers, that there exists a relationship between this affection and pseudoleucemia—a relationship warranting, in

their opinion, the designation splenic pseudoleucemia. It is maintained by Osler, however, that "there is no warrant for the opinion that these cases of anemia splenica have anything to do with Hodgkin's disease (anemia lymphatica) from which the clinical picture is very different."

The enlargement of the spleen in my patient was not as great as that encountered by some observers. Whether it preceded or followed the development of the anemia, I am unable to state. Both were present when I saw the patient for the first time, and the patient even at that time was unaware of any abnormal growth in her abdomen. In the majority of reported cases the enlargement of the spleen seems to have been the primary event—hence the designation primitive splenomegaly employed almost exclusively by the French writers. I have no reason to doubt that in my case also the enlargement of the spleen preceded the anemia.

The hemorrhage in my case also was very interesting and of an unusual source—from the genitals. I have not read of a similar occurrence in any of the reported cases. The hemorrhages usually associated with splenic anemia are epistaxis, which may be repeated and profuse; gastro-intestinal hemorrhages, which were an interesting feature of a number of Osler's cases, hemoptysis, hematuria, retinal hemorrhages, or smaller hemorrhages into the skin and mucous membranes. It is well to remember the hemorrhagic tendencies of these cases, especially if any operation, such as removal of the spleen, be contemplated.

The dyspnea, particularly during the last month or six weeks of the life of my patient, was really extreme, especially upon the slightest exertion. As already narrated, with the enlargement of the spleen and the anemia, it seemed to dominate the clinical picture. Late in life the diarrhea also was an obtrusive symptom. The attacks came on without obvious cause, lasted three or four days, and at times were really severe and attended by a little rectal tenesmus.

The fever was altogether one of the most interesting features of the disease. It was as a rule very high—usually 103° to 104° F.; I rarely found it below 102° F. in the evenings. It was equally remarkable, however, that on several occasions it was but 99° F. in the evening. It was similar to, and as inexplicable as, that associated with leucemia and other grave anemias.

The blood changes in my case were similar to those described in the majority of reported cases. There was a moderate reduction in the number of red corpuscles, associated with a greater reduction in the percentage of hemoglobin—blood alterations commonly referred to as of the chlorotic type. In a number of the reported cases a marked leucopenia existed, but such was not present in my case. The detection of several erythroblasts and of a small number of somewhat distorted erythrocytes may also be noted.

Concerning the nature of the disease I am

unable to add anything to what has already been written on the subject. Whether the condition merits the distinction of a clinical entity; whether it is akin to pseudoleucemia, and is in reality a splenic form of the affection, as some hold; or, finally, whether it is but a peculiar form of secondary anemia, the evidence at hand does not warrant us in affirming. Whether the enlargement of the spleen is the direct cause of the anemia, or whether both of these are the result of a common etiologic factor, is at present unknown. It appears, though, from clinical observation that the enlargement of the spleen is the primary event. Whatever the nature of the affection, it presents a tolerably uniform symptomatology, and provisionally, therefore, the designation splenic anemia is satisfactory. Provisionally, also, the designation anemia with enlargement of the spleen is equally as satisfactory if not more so.

It is upon the assumption that the enlargement of the spleen is the essential feature of the disease that the only successful treatment known at present is based. Medicinal treatment is hopelessly inefficient. In but a few cases has temporary improvement followed regulation of the diet and the mode of living, fresh air and sunshine, iron, arsenic, and the like. In appropriate and selected cases removal of the enlarged spleen should be considered. The seriousness and possible fatal consequences of the operation itself must be borne in mind, and it should not be undertaken without reasonable hope of benefit to the patient. That the proper treatment be instituted at a favorable time, the endeavor should be to recognize the affection as early in its course as possible, and, if the patient be in good condition, the operation should not be delayed longer than is necessary for the physician to become assured of the correctness of the diagnosis. Operation should not be undertaken in those cases in which the patient is manifestly doomed to an early death. That satisfactory results, however, may be expected in favorable cases, is indicated by the statistics collected by Sippy. Of seven cases reported in the literature, five were cured by removal of the enlarged spleen. The remaining two died of hemorrhage. To these five successful cases Osler had added a sixth. Some doubt, however, may be expressed with regard to the certainty of the diagnosis in several of the cases collected by Sippy.

The duration and course of the disease in the individual instance should influence us in deciding for or against surgical intervention. The duration of the disease, however, is difficult to estimate, and this is in great measure dependent upon the difficulty in ascertaining the duration of the first stage—the stage preceding definite enlargement of the spleen and grave anemia. The disorder is generally said to last from six months to two or three years. Certain writers, however, have observed cases of much longer duration. Thus, Osler reports one case that lasted five years, and another that persisted for

at least twelve years. Cases of rapid course are naturally unsuited for operation. Operation in these cases would not only most probably hasten the inevitable fatal termination, but it would likewise reflect discredit upon the only successful mode of treatment known at present. In those cases in which the disease is of slower course, when there occur remissions and temporary improvement under medicinal treatment, and when the patient is in fairly good general condition, the wisdom of operative intervention should be carefully considered. That in properly-selected cases, surgical treatment may be undertaken with hope of a successful outcome is indicated by the fact that in none of the successful cases so far reported was the operation performed early in the course of the disease.

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SOME DIAGNOSTIC DETAILS.¹

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THERE are many things in the art of diagnosis not to be found in text-book or journal literature, nor, indeed, anywhere else save by an earnest and observant study of the open book of Nature itself. Skilful diagnosis does not entirely consist of a dulness here, a tympany there, a thrill, a murmur, a classic group of symptoms or scientific facts as put down in some text-book. It is a notorious fact that few cases follow out in detail the text-book description of the disease. What is it, then, that makes the reputation of one physician as a skilful diagnostician, and of another as a bungler? The older physician, with a wealth of experience, has so trained his perceptive faculties that he grasps

¹Read before the Atlantic City Academy of Medicine.

and groups the essential details of a case almost at a glance, discarding the unimportant things, some of which are often much magnified by the patient. In this respect, he has the advantage of the young practitioner, who is prone to lay too great stress on whatever symptom may be most exaggerated by the sick man. The real value of symptoms with reference to the general principles of physiology, histology and pathology must be correctly estimated by him who would excel in diagnosis. The perceptive qualities of the mind must also be highly developed, and supported by a habit of the closest observation.

Perception may be defined as that faculty of the mind by which we take instant cognizance of an object or a truth without being able to analyze or communicate the mental process by which we arrive at our knowledge; nor does ignorance of the process necessarily affect the correctness of the conclusion. Fortunate is the physician who naturally possesses this faculty in marked degree. The sense organs of such men are exceedingly keen, and their mental processes rapid. They go straight to the point, recognizing the disease at times instantly, and with almost unerring certainty. It is this faculty, coupled with the habit of unconsciously observing details—the most trivial modification of appearance, complexion, voice, manner, gait, expression, muscular control and hundreds of other minutiae, that gives to some of our greatest men their seemingly wonderful intuitiveness in diagnosis. Of such physicians it may be said, as of poets, "They are born, not made."

In estimating the true value of symptoms with reference to disease, the mind must be able to sift the wheat from the chaff; to get at the significant things and draw from them correct inferences based on a thorough knowledge of the scientific facts of medicine. Very necessary is that particular quality of a well-trained mind known as the synthetic or syllogistic power, which grasps the salient points of any question, groups them in a logical manner, and reasons from them to a correct and positive conclusion. The true physician should be above the plane of narrow reasoning and prejudice. He must be able to view a question from many standpoints abstractly and have a mind so balanced by an innate sense of justice that each shall receive its due weight in formulating a conclusion.

No physician can see too much, nor observe too carefully. No detail is too trivial for his mental note-book. The minor things not in books may often help him. The expression of the face and the quick glance of the eye often speak volumes, and human nature itself should be thoroughly studied to correctly understand them. Who that has seen the cowering look of the opium fiend, or the cunning craftiness and deceit of the eye of the morphinomaniac, fearful of detection in his vice, can forget it? The bloated face and red eye of the alcoholic is practically pathognomonic. The contorted face, wrinkled with sharp pains; the pallid, worn and weary expression of chronic pain, suffering written in every lineament of the face;

the careworn, anxious look of the mother, striving daily, bearing bravely, perchance uncomplainingly, the burden of domestic duty, faithful to her spouse and her family in spite of ovarian and uterine troubles, that are sapping her health and wrecking her nervous system; or the dusky pallor, colorless lips, pinched nose, appealing eyes, distressed and pitiable in their very glance of anxiety, as if they foreshadowed the impending calamity of unrelieved shock or dire disease; all speak with no uncertain voice in determining the conditions confronting us. The discontented and pouting expression of the spoiled hysteric, selfish, domineering, exacting sympathy from all around her, and yet unsatisfied with whatever may be done for her; the wild eye of mania and fever's delirium; the silly face of the imbecile, the exalted or depressed expression of various forms of insanity; the dull, stolid, square-jawed and empty face of the adenoid child, all mean much in diagnosis; while pitiable is the wrinkled, weazened, and very knowing, little old-woman face of the helpless, speechless infant with marasmus. This can hardly fail to impress itself on the dullest observer, when first seen.

The eye alone, dilating with pleasure or contracted with pain, its brightness or listlessness varying in all degrees of well-being and sickness, indicates often the slightest change from a feeling of buoyancy and health to that of languor and malaise. Its lack of luster is often the first thing noticed in what the watchful mother terms "droopiness" in her child.

Together with the bright eye, red lips and flush of fever, may be seen also an incoördination of groups of muscles. The actions are quick, often jerky, the small muscles of the face twitch, the lips tremble, the voice loses its firmness and trembles as if under strong and suppressed emotion. Loss of control over the voice tone is noticed in many conditions, as in the, at times, abnormally loud laugh and spasmodic speech of the hysteric, the jerky, nervous voice, the aphonia of laryngitis, or the husky voice, the hoarse voice, the voice of hypertrophic rhinitis, which has no carrying power. The tone, expression of the voice, may distinguish the acute cry of pain and the groan of suffering from content and satisfaction. This tone language becomes often the only means of determining in the infant, whether its cry is of anger, gripping pain or the fretting of general discomfort. The complexion should not go unnoticed; compare the transparent skin, beautiful flush of color and bright eye of healthful youth with that dull, deadened eye, yellowed sclera and muddy skin, in which each feature takes on a coarser and rougher appearance—the bilious picture of a circulation full of toxins that should have been excreted by lagging organs. The whole face expresses misery and dejection. There is the bumpy acne face, suggestive of genito-urinary disturbance; the tuberculous, waxy, white skin, with hollow, glittering eyes and hectic red; also the roseate nose and florid plethora of gouty grumblers, fit subjects for cerebral hemorrhage; the soft,

pasty, white skin of the victim of Bright's disease, and that the peculiar, lifeless white of the uric-acid diathesis, so well associated with the refined and physically inactive elderly ladies of the community who pride themselves on their delicate sensibilities and to whom the slightest hardship is a horror. Nor can one forget the bluish lip and peculiar bronzed appearance of the cachectic complexion of malignant disease, as if a transparent skin had been spread over brown paper. This complexion has been considered almost pathognomonic by some physicians.

Such things as the breathing and position of a patient may be indicative. The child with high fever breathes very rapidly. The respiration is also accelerated in the case of an adult. Is the breathing superficial, showing deficient lung space or abdominal pain; catchy, with intercostal neuralgia, or indicating endothelial involvement of pleura or peritoneum, or acutely-congested lung tissue; or is it the distressed breathing of the asthmatic, with its long, whistling and forced expiration? The blue-lipped laborer for breath in failing cardiac compensation; the unconscious patient pallid with alarming hemorrhage, sighing and sighing the life away; the Cheyne-Stokes type and the stertor of cerebral involvement are impressive danger signals to the close observer of disease.

Position is significant, especially with infants. Restlessness, constant shifting of position, and tossing about shows at once an excited condition of nerve-centers. It may be from fever, soreness and pain, a limiting of breathing space in the upper respiratory tract, indigestion, or nervous states. A patient lying on the back, with legs drawn up, suggests pelvic or abdominal pain, or inflammatory conditions which may be of a very varied nature. The sufferer from cholera morbus is frequently found on the side, with thigh and legs flexed, usually unquiet and writhing in pain at intervals. The position taken by those with many chronic troubles is often of the greatest importance in formulating a diagnosis. The space, however, devoted to a short paper does not permit the enumeration of more than a few of the multitudinous things that are seen every day by the observing physician as he makes his rounds from house to house. He often gathers valuable information from the bearing, gait, and even the dress of his patient.

Just a word may be said as to odors. In many diseases certain odors are prominent, as in typhoid fever, grip, tuberculosis, sepsis, decomposition, and other conditions in which elevated temperature plays a part. There are those who have gone so far as to state their ability to diagnose variola, typhoid, etc., by their odor alone. The diarrhea odor, the urinary smell, etc., are significant, while some persons on entering a room where there are several women can single out by the sense of smell those who are menstruating or suffering from leucorrhea.

A very valuable thing in treatment, as well as in diagnosis, is a correct appreciation of temperament. Temperaments may be divided into four

general classes *viz.*, (a) the nervous; (b) the sanguine; (c) the bilious, and (d) the phlegmatic. Individuals not conforming exactly to these classes are invariably found to be modifications of them or combinations of different classes, as neuro-sanguine, neuro-bilious, sanguino-phlegmatic, or bilious-phlegmatic.

The typical nervous temperament is of brunette description and slender build. Persons of this type are quick-thinking, quick-acting; every movement of the body is nimble and alert. They are always active, both mentally and physically, and keyed to such tension that everything concerning them, joy and sorrow, pleasure or pain, is acute and intense. Highly imaginative, they are often worrying over the things that never happen, and many of this type are burning their supply of life's fuel constantly at a white heat as long as it lasts.

The sanguine temperament, usually of healthy organization, is possessed of much endurance, but needs also much rest and sleep. As a rule, individuals of this type have sandy hair, clear skin, but are sometimes portly in build. This type, perhaps, is every bit as quick and active as the nervous in many ways, yet takes life more calmly and just as it comes. It is not so intense. The sanguine man is not an extremist. He is an optimist, seeing the good in things, looking on the brighter side of questions depressing to others, philosophizing out the results and quietly awaiting their materialization. He has a keen appreciation of the ridiculous, enjoys life in an equable way, and doesn't let its cares and trials weigh so much on his spirits as to depress him and affect his health.

The bilious type, black-haired, dark-skinned, angular, rugged, strong in principle and decision of character, often "grand, gloomy and peculiar," is subject to fits of the deepest despondency and melancholia. These people are matter-of-fact, take life very seriously, and shoulder as a duty, with the heroism of martyrs, weighty responsibilities, from which more timid characters shrink. Some of the world's greatest leaders are numbered among this class, a typical example of which was Abraham Lincoln.

Every one recognizes in the thick-set, broad-shouldered, short-necked, broad-jawed and ruddy man all that is expressed in the word phlegmatic. This type is slow to think, slow to act, slow in his movements, but dogged in determination, often what is known as "pig-headed" and obstinate. Every question must filter through his mind, drop by drop, until the conclusion is reached, while the opposite and more fickle, nervous type has seen through it at a glance and perhaps changed his mind two or three times in the meanwhile. The phlegmatic man enjoys none of that keenness and intensity of feeling experienced by the nervous or sanguine type, nor do the pleasures of intellectual pursuits and high culture appeal to him. The coarser fiber of his make-up demands rather the satisfaction of physical enjoyment. His tastes tend toward the sensual, and he is often lazy, dull and heavy.

A physician may so familiarize himself with in-

dividual physical types and combinations of temperament, when once his attention has been given to the matter, that at a glance he can tell from the color of the hair, the texture of the skin, the firmness of the flesh, appearance of mucous membranes, expression, bearing, general build, and similar indications, just what allowance should be made for sensitiveness and reactionary power. Such considerations, no doubt, influence every practising physician more or less, perhaps unconsciously, in many cases, in making up his mind with regard to the general condition of his patient.

I have not sought to exhaust such a broad subject in a short paper, but only to touch on a few things here and there that might suggest others met with in your various experiences, and to emphasize the importance of noting every detail, even the smallest and most trivial, in the matter of diagnosis. Such details often aid materially the grouping of things in a general analysis of the patient's tendencies and susceptibilities, and will well repay the close and careful observation given to their study.

ON GONORRHEAL CYSTITIS IN THE FEMALE.

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SINCE Wertheim in 1894 proved that a pure, gonorrhreal cystitis does exist, a number of other authors have reported cases of this sort, but still investigations upon this subject have been far fewer than the frequency (though often unrecognized) of this condition would warrant. Krogius¹, in the examination of 22 cases of primary and secondary cystitis, found the gonococcus of Neisser twice, in one of the cases in pure culture. Rovzing² reports four cases in which, by means of the cystoscope, he diagnosed a cystitis in the turbid, acid urine of which he found the gonococcus, in one case accompanied by the *Bacterium coli*. Rostoski³ found three in the examination of 120 cases of cystitis reported in medical literature. So also Melchior⁴ states that true gonorrhreal cystitides may occur, which are caused by the gonococcus of Neisser. According to Finger's statement⁵, it is to be counted among the rarest of the complications of gonorrhea; Barlow⁶ says that cystitis is seldom a direct complication of gonorrhea, but is to be traced back to the intervention of other irritating agencies, a point of view with which Zuckerkandl⁷ agrees. Bumm⁸ takes the position that every cystitis occurring in the female under these conditions is due to a mixed infection. Young⁹ reports two cases of acute and two of chronic gonorrhreal cystitis, and states that he believes that this disease is more frequent than is reported. With this statement I fully agree, though I cannot accept all of his cases without question as being cases of gonorrhreal cystitis. A careful examination of his article leads me to believe that, although Case I. (in which he obtained the gonococcus in pure culture)

was a cystitis, it is far more likely that Case II. was an acute gonorrhreal prostatitis (a number of cases similar to the above which have come under my personal observation lead me to take this view), although he did obtain by aspiration purulent urine which contained typical gonococci. Similarly I am led to believe that his cases of chronic gonorrhreal cystitis (the one said to be of five years' duration) were not cystitis but prostatitis. Careful examination of a large number of acute and chronic cases of gonorrhreal prostatitis has shown me that these may often simulate an acute or subacute cystitis, both as regards the degree of tenesmus and the degree of the turbidity of the urine. It is to be regretted that in none of his cases could the author give us absolute certainty as to the involvement or non-involvement of the bladder, by performing cystoscopy. Without this measure, or the opening of the bladder, no diagnosis can be absolutely certain in the male, owing, as above remarked, to the possible involvement of the prostate. In view of the danger of this procedure, however, in acute cases, and of the exceeding sensitiveness of the urethra, it is a step which may not be taken during the acute stage, though I am of the opinion that during the chronic stage, if proper antigenorheic precautions are taken, the danger will not be as great as is believed.

In the female, however, in whom there is no prostate gland to complicate the picture, the diagnosis is a much easier matter. The cystoscopic examination of a number of cases of gonorrhreal urethritis and urethrocystitis has convinced me that, while there may be some burning pain during urination, in the course of a urethritis, tenesmus, and increased frequency of urination, as well as turbidity of the second urine (the first being allowed to escape through the catheter), will not occur until the gonorrhreal inflammation has involved the sphincter or this and the bladder itself. Hence I cannot agree with Kolischer's¹⁰ view that the diagnosis of gonorrhreal cystitis in the female can only be made with the aid of the cystoscope, though, in view of the comparatively harmless nature of this procedure, I have felt justified in using it as an aid to diagnosis and as a means of obtaining greater certainty, especially in order to be sure as to the portion of the bladder involved and the extent of the involvement—of course, in every case, under proper precautions.

The results of my examinations were as follows: Total number of cases of cystitis examined. 92

In these there was present
Cystitis catarrhalis in. 67
Cystitis suppurativa in. 25

The cases of gonorrhreal cystitis were found only among those of the suppurative type, and were 5 in number. Of these the form of cystitis was

Cystitis colli in. 4
Cystitis universalis. 1

The symptoms of the condition are those of an acute or subacute suppurative cystitis; that is, increased frequency of urination, accompanied by a greater or less marked degree of burning and cutting pain during urination and also preceded or

followed by a degree of tenesmus varying with the extent of involvement of the sphincter and the tissues in its immediate neighborhood. At times the urine contains small quantities of blood, which usually appears toward the end of urination. Fever or chill may also occur. The urine is usually of acid reaction and turbid, the turbidity being due to the presence of pus-corpuscules and a few epithelia. The gonococcus is found both intra- and extra-cellular in the urinary sediment, and has the typical characteristics of the gonococcus of Neisser. Where any doubt exists Gram's method of differential staining must be employed. As the culture of the gonococcus from urine is acknowledged to be a most difficult matter, the coincidence of the micro-organisms found in the urinary sediment and the urethral discharge may be taken as sufficiently conclusive. In case of need a culture may be made, with far greater chances of success, from the urethral discharge. The cystoscope finally adds the certainty of the presence of a vesical inflammation and its extent and degree of severity.

But, while there is usually the history of an accompanying urethral, or vaginal discharge, the nature of which the microscope reveals, and while the symptoms are usually marked, my examinations have shown me in many instances that the discharge may be so slight as to escape any but the most careful examination, and that only after close questioning may one elicit any physical symptoms whatever. I have in several instances only had my attention called to the bladder by the patient. The nature of the cystitis was what led to a subsequent examination of the urethra.

In view of the difficulty of getting the gonococcus to grow in cultures made from urine, I did not deem it necessary to try to obtain them in my cases; but the diagnosis of gonorrhreal cystitis was only made when turbid second urine was obtained (the first being allowed to flow off through the sterilized catheter after careful irrigation of the urethra with protargol solution), the turbidity being then proven to be due to pus-cells, many of which contained intracellular diplococci presenting all the morphological characteristics of the gonococcus of Neisser. When any doubt existed, Gram's method was applied.

The accounts of the pathological changes and cystoscopic picture vary decidedly with different authors. Finger, Ghou and Schlagenhaufer¹¹ found, in a case of subacute gonorrhreal cystitis examined by them, swelling and reddening of the mucous membrane; the epithelium was desquamated down to the deepest layers and easily removable. There was present in the subepithelial connective tissue an infiltration consisting of round cells, spindle cells and leucocytes; the capillaries, also, were distended, reaching at many points nearly to the epithelium, and were filled with leucocytes. Gonococci were present in small numbers in the upper layers of the subepithelial connective tissue. Wertheim¹² found a true gonorrhreal thrombophlebitis of the capillaries of the vesical mucous membrane, with gonococci upon and between the epithelial cells, in pus-cells in the sub-

epithelial connective tissue, and also in the capillaries of this tissue, which they filled. Finger¹³ states that "we find the bladder, according to the intensity and extent of the process, in toto or at different points, more or less swollen, more or less intensely inflamed, or only crossed by dilated, dendritic vessels. The epithelium is loosened from its base in shreds, which in part continue to be attached by threads to the mucous membrane, in part float free in the urine, whilst the swollen follicles appear as dark red points." In the four cases reported by Rovzing¹⁴, all of which occurred in the male, cystoscopy showed, in the first case, the mucous membrane at the fundus to be markedly reddened, thickened and succulent, the redness gradually growing less marked toward the periphery. At the vertex the redness was only slight. In the second case diffuse injection and swelling of the entire mucous membrane were found; in the third, the entire mucous membrane was reddened and swollen, the process being most marked in the neighborhood of the internal urethral orifice; in the fourth it was markedly injected at the fundus and the region of the sphincter, while the rest of the bladder was slightly but diffusely reddened. Casper¹⁵ expresses his opposition to cystoscopy, in acute gonorrhreal cystitis, and accepts Finger's description. In the case reported by Wertheim¹⁶ the wall of the bladder, viewed through an endoscopic tube, was found to be diffusely reddened, laid in folds, and tending easily to hemorrhage. Zuckerkandl¹⁷ found in a case of severe gonorrhreal cystitis, in which he opened the bladder by incision, the wall thickened, the mucous membrane of an even, purplish-red tint, lying in stiff folds, nowhere detachable, and bleeding easily. In the lighter forms, he says, one only sees a diffuse, increased ramification of the blood-vessels which, more marked at points, causes a macular reddening of the mucous membrane; he states that, at times, we find a true cystitis colli. According to Kolischer¹⁸, we find in recent inflammations the mucous membrane, either in the neighborhood of the internal orifice or over the entire surface of the bladder, covered with discrete (insel förmig), pale-red spots, between which the mucous membrane appears fully normal. According to his views the discrete type of the inflammatory areas is characteristic for gonorrhrea of the bladder, although, in chronic cases the process tends to spread, the color of the originally red spots becoming more or less brown, the process even going on to the formation of ulcerations.

In the five cases described below the diagnosis of gonorrhreal cystitis was in each made only after careful examination of the urine and after cystoscopy. In none of them, as also in a number of other cases of gonorrhreal urethritis examined, was there the least increase in the severity, or any spreading of the condition, as a result of the instrumentation, even though these patients could only be treated as ambulant cases. As a result, I should not hesitate to employ the cystoscope in such cases in future, using, of course, similar precautions. I hold it to be especially necessary in

such examinations to avoid cauterization of the mucous membrane.

The first case coincided in type with that mentioned by Kolischer, many of the areas, however, being of a dark red, almost brown color, others lighter. That the cystoscopic picture did not agree with that given by the other authors I consider to be due to the fact that the case came under our care early, and that we were at once enabled to make a correct diagnosis, to begin promptly appropriate treatment, and thus check the spread of the inflammation. I am inclined, therefore, to accept the "discrete" form as the type of the inflammation in cystitis corporis in the early stages, whereas, in the older cases, the process may tend to become a general, suppurative inflammation through the spreading and final confluence of the inflammatory zones. It seems likely, also, that in this type the infection of the body of the bladder occurs, not through the contact of the walls of the bladder, nor through the urine itself, but solely through the blood-vessels and lymphatics.

The other four cases presented the cystoscopic picture of a cystitis colli suppurativa: The entire circumference of the internal orifice was found to be inflamed, the mucous membrane being swollen

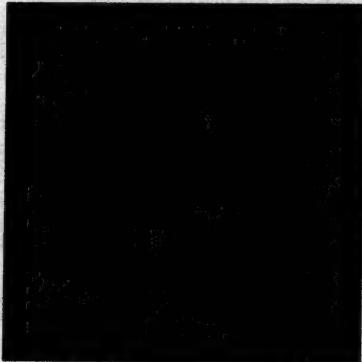


Fig. 1.—Papillomatous growths at and near the sphincter vesice in a case of cystitis gonorrhoeica.

and thrown into irregular papillomatous folds, having lost its glistening appearance, and bleeding very easily. In one case (Case II.), in which I also succeeded in obtaining endovesical photographs (see Figs. 1 and 2), the lumen of the internal urethral orifice was encroached upon by two papillomatous, inflamed, tumor-like masses. The patient, a primipara, had recently been confined and had subsequently been infected by her husband. I believe that the extent of the changes was, in this case, greatly increased as a result of the bruising of the tissues of the urethra, the child's head having, in passing, crushed it against the pubic arch. Thus the gonococci had an opportunity to penetrate much more deeply into the tissues. In one of the other cases, also, there was a distinct oedema bullous at the periphery of the inflammatory zone.

All five of the cases added a further proof of the

truth of Rovzing's view that gonorrhreal cystitides belong to the class "cystitis suppurativa acida." The histories of the cases were as follows:

CASE I.*—Urethritis gonorrhoeica, cystitis gonorrhoeica; vulvitis gonorrhoeica; endometritis non-gonorrhoeica. March 10, 1900. Frau G., divorced three and one-half years ago; one abortion. The patient has for a long time had a leucorrhreal discharge; for three days, however, she has noticed an increase in the discharge, also pain and burning during micturition, and that she must urinate

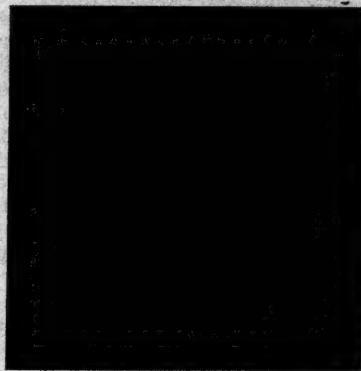


Fig. 2.—Similar but larger growth on the opposite side of sphincter margin.

about every quarter-hour during the day; during the night, however, she does not urinate. The present condition has not been treated nor examined up to the present. Vulvar and urethral discharge is purulent and contains typical intracellular gonococci. None in vaginal secretion. Following irrigation of the urethra with about 50 c.c. of a $\frac{1}{2}$ per cent. protargol solution, the urine is drawn off by means of a sterilized metallic catheter, the first being allowed to flow off, the second caught in a clean, glass vessel and immediately examined.

Urine.—Turbid, acid, contains albumin. Sediment consists exclusively of red blood-cells and pus-cells, many of the latter containing typical, intracellular gonococci. No other micro-organisms present.

Cystoscopy.—The mucous membrane of the entire bladder-wall is strewn with small round, hemorrhagic points and nodules, which strongly resemble a purpura, but are somewhat raised above the level of the surrounding mucous membrane. Between these points, or zones, the surface appears perfectly normal. In the neighborhood of the sphincter the process is most marked.

Therapy.—After preceding irrigation of the urethra with a $\frac{1}{2}$ -per-cent. protargol solution, about 75 c.c. of this fluid were injected directly through the urethra (without a catheter) into the bladder, and allowed to remain there until the next urination. After cleansing the vulva and irrigating the vagina with the same solution, a gauze strip, saturated with a 5-per-cent. solution of protargol in glycerin and water, was inserted into the vagina, filling this and being allowed to protrude

*Reported in the *Dermatologische Zeitschrift*, Vol. VII., No. 3.

therefrom and a part to rest between the labia. This strip remained in place for twenty-four hours. Warm Sitz-baths daily. No internal treatment whatever was employed, except regulation of the diet. The treatment was repeated daily.

March 15th.—Symptoms during urination have disappeared. The patient now urinates every two and a half to three hours. Treatment has caused no pain whatever. Urine normal. Cystoscopy shows decided improvement.

March 17th.—Cystoscopy shows bladder entirely normal.

March 26th.—Urethral secretion contains isolated pus-cells, many squamous epithelia, no gonococci, but other bacteria (chiefly diplobacilli). Patient has not been either treated nor examined for some days because of menstruation.

April 5th.—Since above date no symptoms whatever. Treatment has been continued. On stripping the urethra a mere trace of mucous discharge is obtained. This consists almost exclusively of mucus, large, squamous epithelia, isolated, degenerated pus-cells, no micro-organisms whatsoever. Urine normal. Cystoscopy shows bladder-walls entirely normal.

The alcohol test and menstruation having produced no reaction, the patient was discharged cured.

CASE II.—Urethritis gonorrhœica; cystitis colli gonorrhœica; vulvitis gonorrhœica. Frau S., 27 years of age, married ten months, primipara (confinement nine weeks ago), no history of previous discharge. April 20, 1900. Patient complained of discharge, accompanied by frequent and painful urination, and pain in abdomen. Examination reveals purulent discharge at vulva and from urethra. Urethral orifice markedly reddened and swollen. Discharge has been present for about two weeks. First coitus after confinement over two weeks ago; again four or five days later. Four days following the latter patient noticed some discharge. This had been preceded for some days by burning about the genitals and burning pain upon urination. Husband admits having contracted gonorrhea about eight days after his wife's confinement. We were able later (June) to verify this, as the husband was still uncured, and, by proper treatment, to cure him also.

Urethral Discharge.—Purulent, pus-cells contain intra- and extracellular gonococci. Gram's stain positive. No other bacteria.

Urine.—After irrigation of the urethra with sublimate solution followed by protargol in $\frac{1}{2}$ -per-cent. solution, the urine is drawn off as described in Case I. It is markedly turbid, of acid reaction, grows more turbid on boiling and on addition of acetic acid. Sediment consists of pus-cells and many intra- and extracellular gonococci. Gram's stain positive. No other bacteria.

Cystoscopic Examination.—The entire sphincteral margin is markedly inflamed and swollen, especially at the lower portion. At the lower, lateral angles there are two large, inflamed, papilloma like tumor masses. (See Figs. 1 and 2.) Trigone edematous and strongly congested. The rest of the bladder entirely normal.

Therapy.—Precisely the same as in Case I.

April 23d.—Urinate now six times during the day and once at night (but the latter only if awakened by the child). Neither pain nor tenesmus on urination. Discharge diminished. Still contains gonococci.

April 24th.—Cystoscopy shows little change discoverable. Symptoms diminishing.

April 28th.—Symptoms have disappeared. Discharge very slight; this still contained yesterday a few isolated gonococci.

Cystoscopy shows decided improvement. The swelling and inflammation have become decidedly less marked.

May 3d.—Urine still slightly turbid. Cystoscopy shows continued improvement.

Therapy.—In addition to former measures a trial injection of about 50 c.c. of a $\frac{1}{8}$ per cent. solution of nitrate of silver into the bladder is made. Patient is ordered to use daily, a vaginal irrigation of two liters of a 1-1200 solution of nitrate of silver in place of the tampon.

May 5th.—Gonococci still present in the urethral secretion and in the sediment of the still turbid urine.

May 8th.—Cystoscopy shows that the tumor upon right side has disappeared; that upon left side decidedly decreased in prominence.

May 10th.—Gonococci still present in small number in the urethral discharge and in the urinary sediment.

May 18th.—General condition normal. Trace of turbidity of the urine. Sediment contains no gonococci. Still some purulent-vulvovaginal secretion. Cystoscopy shows condition similar to that of the 8th inst.

May 22d.—Increase in discharge, which still contains isolated gonococci. Woman admits coitus with her still uncured husband.

Therapy.—Protargol increased to 2 per cent. Vaginal irrigation of nitrate solution replaced by gauze tampon, as before.

May 25th.—Decided improvement.

May 29th.—No symptoms whatever. Urine normal. Cystoscopy shows bladder normal with exception of a trace of swelling and redness on the left margin of the sphincter. No urethral discharge. Vulvovaginal discharge very slight. Alcohol test; coitus test (husband to wear condom).

June 1st.—After above tests a trace of discharge containing isolated extracellular diplococci. Therapy as above.

June 7th.—No urethral discharge. Urethral scraping shows epithelia, solitary, degenerated pus cells; is free of micro-organisms. Urine normal. Cystoscopy shows bladder normal, with exception of slight hyperemia at trigone. Test irrigation with 150 c.c. of $\frac{1}{8}$ -per-cent. nitrate of silver solution.

June 9th.—No urethral or vulvovaginal discharge. Scraping shows only epithelia; free of micro-organisms. Vaginal scraping shows only epithelia; no micro-organisms. Cervical scraping, mucus containing isolated pus-cells and epithelia; no micro-organisms. Urine entirely clear. Sedi-

ment only a trace; consists of isolated epithelia and degenerated leucocytes. No micro-organisms.

Therapy.—Since the 1st inst. no protargol has been used. Patient is now instructed to live as usual, and to use daily vaginal irrigation of warm water.

June 16th.—In spite of absence of treatment, and although patient has drunk beer and has several times indulged in coitus (husband wearing condom), there is no reaction whatever. Urethral scraping epithelial in character. Urine normal. Cystoscopy shows bladder normal. Discharged cured, but requested to report from time to time as her husband is still suffering from a subacute gonorrhea.

June 23d.—No symptoms whatever; no discharge.

June 26th.—Condition normal. Cystoscopy shows bladder normal.

July 10th.—Condition normal. Urethral scraping purely epithelial. Urine normal. Cystoscopy shows bladder normal. Discharged cured.

CASE III.—Urethritis gonorrhœica; cystitis coli gonorrhœica; Bartholinitis sinistra gonorrhœica. Fr. S.; twenty-five years of age; no history of previous discharge. June 16th: For the past eight days complains of having to urinate about every quarter-hour during the day, the act being accompanied by burning and tenesmus, and followed by slight bleeding. During the night sleep is not disturbed. Patient admits having had coitus twelve days ago. Urethral orifice and left labium inflamed and swollen. Vagina shows no inflammatory changes. Erosion of cervix present. Urine is turbid and of acid reaction. Urethral secretion is purulent; contains typical intra- and extracellular gonococci. No other micro-organisms. Discharge from Bartholinian gland is purulent; contains gonococci; no other micro-organisms. Vaginal scraping contains epithelium, diplobacilli, no gonococci. Cervical secretion is of mucous character; contains diplobacilli and diplococci (not gonococci, however). Urinary sediment contains pus cells, many containing typical intracellular gonococci.

Cystoscopy.—Sphincteral margin inflamed and swollen, especially at the lower, left portion. Trigone markedly hyperemic. Oedema bullousum vesicles visible at different points, near the zone of inflammation. Blood clot in left pocket of bladder. Body of bladder free.

Therapy.—Same as in Case I., with addition of massage of the infected gland. Complete treatment could not be begun until the 19th inst.

June 20th.—Symptoms have somewhat lessened in severity.

June 21st.—Urinate now only every two hours during the day. Pain and tenesmus have diminished in severity. Discharge less marked; still contains gonococci, but fewer. Still purulent secretion from the diseased gland. Cervical secretion mucous in character; contains a few pus cells, but no micro-organisms whatever. Cystoscopy shows no marked change.

June 30th.—Has not appeared for further treatment. Discharged improved.

CASE IV.—Urethritis gonorrhœica; cystitis coli gonorrhœica. Fr. N.; twenty-two years of age; no history of previous discharge. June 23d: Patient complains of having noticed some discharge since about the 9th inst. Since the 15th she has had some cutting and burning pain on urination, but no tenesmus. Yesterday noticed some blood at the end of micturition. Frequency normal. Admits having had coitus on the 1st inst. Inspection reveals redness and swelling (not very marked, however), of urethral orifice. Vulva and vagina show no inflammatory changes. Urine, turbid, acid. Urethral discharge, purulent; intra- and extracellular gonococci (Gram positive). No other micro-organisms. Urinary sediment, pus cells; intra- and extracellular gonococci (Gram-positive). No other micro-organisms. Cervical secretion, mere trace; mucous character; no gonococci; other bacteria, however.

Cystoscopy.—Inflammation and swelling at sphincteral margin and trigone. Body of bladder free.

Therapy.—Same as in Case I.

June 25th.—Urination normal. Urine still turbid. Urethral secretion less; gonococci present. Vaginal secretion contains epithelia and bacteria, but no pus cells or gonococci. Cervical secretion mucous in character and free of micro-organisms.

June 26th.—Discharge diminishing; urine clearer. Still gonococci. In addition to above treatment, a small strip of gauze saturated with a 5-percent. protargol solution is laid into the urethra. This is repeated daily.

June 28th.—Symptoms disappeared. No discharge. Urine clearer. Urethral scraping shows gonococci, but in small number.

June 30th.—Discharge and gonococci increased. Patient admits having disobeyed orders and having drank weiss bier during entire course of illness. Cystoscopy shows still decided inflammatory changes.

July 3d.—Diminution in discharge and in number of gonococci. Urine clearer. Sediment contains degenerated pus cells and isolated gonococci.

July 5th.—No symptoms. No discharge. Scraping contains pus-cells, epithelia, mucin and isolated gonococci.

July 6.—Urine clear. Sediment normal, and contains no gonococci. Urethral scraping free of gonococci. Cystoscopy shows still some redness in the neighborhood of the sphincter.

July 7th.—A few gonococci in the urethral scraping.

July 9th.—Urethral scraping free of gonococci.

July 10th.—Urine continues normal. In urethral scraping are a few gonococci.

July 11th.—Urine normal, sediment free of any micro-organisms. Urethral scraping also free.

July 12th.—Menstruation, consequently no treatment. Must leave the city to go home to parents. Discharged improved.

CASE V.—Urethritis gonorrhœica; cystitis coli gonorrhœica. Frau G., thirty-two years of age.

June 30, 1900. Complains of discharge from genitals which has lasted about three weeks. Has to urinate nearly every half hour, the act being accompanied by burning. Is not disturbed during night. Patient states that she was infected by her husband, who admits extramarital infection. Discharge comes from urethra, which is swollen and reddened. Neither vulva nor vagina shows inflammatory changes. Urethral discharge purulent. Intra- and extracellular gonococci. No other micro-organisms. Urine, turbid; acid. In sediment, pus cells with intra- and extracellular gonococci. No other micro-organisms.

Cystoscopy.—Sphincter and trigone inflamed and swollen. At upper right angle of sphincter a broad, papilloma-like growth of the size of a pea.

Therapy.—Same as in Case I.

July 7th.—Still gonococci in urethral discharge, though fewer in number.

July 9th.—Symptoms have entirely disappeared and urination is normal in character. Still many gonococci in the urethral secretion. Urine almost clear. Sediment consists of degenerated pus cells and epithelia. No micro-organisms.

July 11th.—Still gonococci present. Patient admits having drunk weiss-bier.

July 14th.—Still gonococci in the urinary sediment and in the urethral discharge.

July 19th.—Slight discharge, containing degenerated pus cells and isolated gonococci. Urine clear. Only a slight trace of sediment obtainable, consisting of degenerated pus cells and epithelia. No micro-organisms.

July 20th.—Scraping of the urethra, as also the minimal urinary sediment still contain isolated gonococci. Urine entirely clear.

July 21st.—Still some discharge. Free of gonococci, however. Cystoscopy shows still inflammation and swelling of trigone and lower margin of sphincter. Referred to Berliner Allgemeine Poliklinik for continuation of treatment as this clinic closes for the season.

Although, in the male, as before stated, one must hesitate before performing cystoscopy during the course of a gonorrhea, I believe that the above five histories have demonstrated that the dangers of this procedure are not so great in the female, provided, of course, that the examination is preceded and followed by appropriate measures. The additional knowledge of the case which we gain overbalances, I think, the slight danger. In every case of acid cystitis, however, before any treatment is begun at all, I should strongly recommend the microscopic examination of the sediment. If this be done, I feel certain that we shall hear from the gynecologists, in the future, of far more cases of true gonorrheal cystitis than we have up to the present.

A final word concerning the treatment. In former days, before we possessed agents which destroy the gonococcus wherever it may be reached, without unduly irritating the mucous membrane, it was the custom to treat the acute stage of gonorrhea by letting it alone and contenting oneself with keeping the patient as quiet as possible and by put-

ting him or her on internal treatment designed to keep the urine bland and unirritating. This plan, in but too many cases, proved its utter inadequacy. At present, since we possess—notably in protargol and largin—two reliable preparations which, if properly used, will do all that drugs can do, we are not justified in delaying the commencement of treatment for one day. This view, the truth of which I have had ample opportunity to prove, is gradually being accepted by even the more conservative of scientific observers. Finger¹⁰, formerly one of the most ardent adherents of the expectant form of treatment, now places himself firmly upon the opposite platform. At his side are Frank²⁰ and Fuerst²¹, who also speak for the immediate institution of the treatment. I believe with them that if we use the non-irritant, non-antiseptics, we can achieve the best result by beginning our treatment at the earliest possible moment. So that in cases of gonorrheal cystitis, beside restriction of diet and the use of frequent hot Sitz-baths, we may begin the use of such remedies, in appropriate strength, in the form of urethral and vesical irrigations, some of the solution being allowed to remain in the bladder each time, these being made in the male without the use of a catheter. In the female the plan which we employed seems to me to offer the best chances of success. It is of interest to note that in all of our cases we were enabled to prevent the spread of the disease beyond the parts originally infected.

One may not, however, discharge a case as cured until the urethral discharge has entirely disappeared and remains away even after the different provocative tests (in the female also until after menstruation) have been employed, until the urethral scrapings are epithelial in character and entirely free from gonococci, until the urine is entirely clear and the sediment normal and free of gonococci, and until the cystoscope reveals a vesical mucous membrane free of all traces of inflammation.

In conclusion I wish to express my most sincere thanks to my friend and colleague, Dr. Richard Knorr, of Berlin, Germany, for the permission to study and report these cases.

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CLINICAL MEMORANDA.

SEVERE ACUTE PLEURISY, FOLLOWED BY PHLEBITIS; DEATH FROM EMBOLISM.

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THE patient, a small woman, sixty-three years of age, had been for three days suffering greatly from dyspnea and pain in the left side when I first saw her. On this occasion her respiration was 62, pulse 140, and feeble, and temperature 102° F. Examination showed the heart apex to be in the fourth space on the right side in the nipple line, and the left chest to be entirely filled with fluid. The left lung was so misplaced that respiratory sounds were not audible anywhere on this side, not even at the apex.

The patient was also suffering from a large intra-abdominal tumor, which protruded beneath the umbilicus as a nodular mass. This tumor was hard and resistant in most of its extent, and was very large, occupying almost the entire abdominal cavity. The great size of the abdomen had been referred by the patient to a dropsical condition. Fluid was not demonstrable, however, and the kidneys were normal. Later, after operation, I was able to determine that the heart was normal. There was no edema of the legs. An exploratory puncture of the left side of the chest revealed the presence of a clear, serous fluid, but owing to reluctance on the part of the patient, I was unable to operate for its removal until the next day, the second after my first visit. Then, with the assistance of Dr. D. T. Marshall, I removed 127 ounces of fluid. At the time of operation the pulse was 140, temperature 101° F., and respiration 64; cyanosis was marked. Hypodermic stimulation was necessary after the removal of but a few ounces, but as the pulse rallied respiration became slower and the general condition improved. There was not any severe cough during the operation, and the left lung expanded well as the fluid was withdrawn.

After aspiration the heart was found to have swung back to nearly its normal position. The puncture was made in the seventh space in the mid-axillary line, the patient being in a semi-recumbent dorsal position, partly because this was the most comfortable for her, and also because I believed that this position would secure a more uniform and gentle return of the heart to the left side, and would prevent undue or sudden traction on its supporting blood-vessels above—a very important consideration in massive left-sided pleurisy in old persons.

Half an hour after operation, the pulse was full and strong at 108, and respiration 36. As only a small amount of fluid had been left in the chest, it was entirely absorbed in a few days under tonics and mild purgatives. On the fourth day the pulse

had fallen to 80, the temperature was normal, and the respiration 28; the left lung had expanded in a very satisfactory manner, and the pleura showed but slight signs of thickening. To my mind the still rapid respiration was due in some degree to upward pressure by the tumor in the abdomen.

The patient was up and about on the fourteenth day; her condition was good, the pulse not exceeding 90 after exercise, and its volume being excellent. On the twentieth day she had one degree of fever, and for several days there was an afternoon rise to 101° F. Repeated exploratory punctures did not reveal any evidence of empyema, and the physical signs in the chest were negative. On the twenty-fourth day she complained of pain and great tenderness in the calf of the left leg, also of chilly sensations, although the temperature did not exceed 101° F. The pain increased, the leg became very edematous, and the popliteal vein could be felt as a hard cord; cord-like masses also could be felt along the course of the internal saphenous vein. At the same time the patient complained of severe pain over the femoral, where there was also great tenderness. Absolute rest was enjoined, the limb was elevated, and other means taken to combat the phlebitis. One week later the tenderness had diminished, the limb was still edematous and cyanotic to an unusual degree, but the temperature was again normal and the general condition good. I carefully cautioned the patient and her attendants, enjoining absolute quietude of the limb. On the morning of the thirty-sixth day after operation I saw her, and found her condition good, heart action excellent and no evidences of lung or pleural trouble. The leg was progressing favorably, and the temperature was normal. The next day, despite all warnings, the patient got up, walked two or three steps and returned to bed. She was immediately seized with an agonizing pain in the right side of the chest, and great dyspnea. I saw her a few minutes afterward, and found her cyanosed and struggling for breath. The heart was weak at 150, respiration variable, about 60 and very shallow. Death, which followed rapidly, was preceded by most intense cyanosis.

The sudden onset of pain in the chest, after exercising and the mode of death make it certain that there was an occlusion of the pulmonary artery. In the absence of any chest trouble at the time of death and in view of the severe phlebitis of the leg, we are safe, I think, in ascribing the death to an embolus from the diseased vein rather than to the formation of a local thrombus in the pulmonary artery.

Aside from the mode of death, the case is interesting because of (1) the amount of fluid removed from the chest and manifestly due to acute pleurisy, and (2) the development of a phlebitis after simple pleurisy—a rare occurrence. In the absence of autopsy the relation of the abdominal tumor to the phlebitis is purely conjectural. That by its size and pressure it disturbed the circulation in the leg, and thereby aided in the formation of thrombus is very probable.

CASE OF DEXTROCARDIA.

BY HOMER M. THOMAS, A.M., M.D.,
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A CONSIDERATION of the general subject of heart displacement reveals two varieties, namely, those which are congenital and those which are acquired. Considering the type of acquired displacements, under which head comes the case I am about to report, we find that very considerable displacement of the apex beat to the right may be due to retraction of the right lung from fibroid phthisis. Again, a very common cause is found in the development of pneumothorax. In cases of fibroid phthisis in which dextrocardia exists, the apex beat is frequently above the right nipple, and might be recognized by physical signs dependent upon collapse or fibrosis of the lung. The heart is pressed out of position by effusions of fluid—*inflammatory, serous or bloody*—into either pleural cavity; by pneumothorax of either side; by intrathoracic tumors; by hypertrophic emphysema or other causes of enlargement of the lungs; by extensive pneumonic consolidation; or by abundant pericardial effusion of any kind. Certain conditions of the abdominal contents produce a similar effect, for example, gaseous distention of the stomach and intestines; enlargement of the liver and other solid organs; abdominal tumors of all kinds and ascites when considerable. In displacements of the heart toward the right the condition is usually the result of effusion into the left pleural cavity, of contracting processes of the right lung or pleura, of left pneumothorax, and of tumors of the left side of the chest or of the mediastinum. In extreme cases the heart may be displaced toward the right side until the impulse is found in the axillary region.

The case here presented is that of F. J., aged forty-six years, occupation rubber worker, whose duties involved the inhalation of considerable quantities of soapstone as well as carbon bisulphide. There is no family history of tuberculosis nor of his having had pneumonia or pleurisy. His only sickness of recent date was an acute rheumatism in 1895. Present condition reveals cough, shortness of breath which began seven years ago; has had much headache and pain in left chest throughout his illness; for two years the cough was very dry; at present expectoration is abundant and comes in somewhat paroxysmal seizures. No tubercle bacilli have been found. The injection of tuberculin developed absolutely no reaction.

Physical Examination.—General anemia, some debility, dyspnea. Complexion dark; emaciation moderate. Form of chest, bulging at costochondral junction; respiratory movements hurried; restricted intercostal retraction. Apex beat fifth space, right nipple line; upper border, upper edge fifth rib; right border, anterior axillary line; left border, right border sternum; lower border, contiguous with the liver.

Mensuration.—Height, five feet, eight inches; weight, 124 pounds.

Measurement. Expiration. Inspiration. Difference.
Right lung 17½ 18 ½

Left lung	16½	17	½
Combined	34½	35	½

Morning temperature, 97.5° F.; noon, 98° F.; evening, 98° F. Frequency of pulse, 92; rhythm regular. Heart, valvular sounds clear; arteries show moderate thickening.

Upon percussion of the left lung anteriorly dulness is found extending from the supraclavicular, clavicular and infraclavicular regions. Upon the right lung anteriorly there is hyperresonance, extending from the lower border of the first rib down to the lower border of the third rib in a semicircular line about one inch to the right of the costosternal articulation. Posteriorly, the lower border of the right lung shows increasing dulness extending from the lower border of the eleventh rib up to the inferior border of the sixth rib posteriorly. Posteriorly in the right lung, extending downward from the superior border of the fourth rib, down to the eighth rib anteriorly, there is found typical bronchial breathing with moist, fine, bubbling râles, and increased vocal fremitus.

Diagnosis.—Our conclusions, based upon the history, as well as upon the present physical findings, are that this is a case of acquired dextrocardia, due to fibroid phthisis and an antecedent attack of pleuropericarditis.

Treatment.—Remove the exciting cause of the dextrocardia, and, necessarily, the displacement will tend to correct itself. This general principle of treatment can be applied to only a limited extent in this individual case. The exciting cause is of too chronic a character, and the lesions resulting from the same too permanent to admit of entire removal. Treatment is, therefore, mainly directed toward the maintenance of the best possible physical condition and the relief of acute symptoms as they may arise.

703 Field Annex.

MEDICAL PROGRESS.

Modification of Cow's Milk.—Of the various methods employed for rendering milk suitable for the infant, most are defective and do not prevent the precipitation of casein in heavy curds in the stomach. L. VON DUNGEN (*Münch. med. Woch.*, Nov. 27, 1900) recommends a very simple method which renders cow's milk perfectly digestible for the youngest patient. The milk, previously boiled, is heated to body temperature and then coagulated with rennet. The coagulum is then completely broken up with a beater. The suspension will eventually be so fine that the finished product can hardly be distinguished from the unaltered milk. Extended experiments have shown this method to be preferred to the usual addition of cereals which infants do not always take well, or to the preliminary digestion with pancreatin which alters the milk to an undesirable degree.

Muscular Atrophy in Infancy.—Muscular atrophy, according to J. HOFFMANN (*Münch. med. Woch.*, Nov. 27, 1900) can be divided into muscu-

lar, neural and spinal. The latter, of distinct familiar and hereditary type, though rare, especially claims the author's attention on account of the ease with which it can often be diagnosed *intra vitam*. It presents the following peculiarities: Usually children, who are born of healthy parents and without the aid of the forceps and whose first months of life have not differed from those of other infants, are attacked by the disease between their fifth and ninth months. In the course of weeks or months the motions in the hips become more and more weak, and this without the appearance of any acute symptoms of infection, such as vomiting, diarrhea or convulsions. Walking, if it has already been begun, will become impossible. At the same time, or soon after, a weakness of the dorsal and abdominal musculature manifests itself. Subsequent months or years show the progress of the disease to the upper extremities and neck, so that eventually the entire system of muscles is more or less paralyzed. The cranial nerves, with the sole exception of the spinal part of the accessorius, are not involved. Atrophy of the muscles, which may be hidden by a well-developed fatty deposit in the subcutaneous tissues, reaction of degeneration, loss of patellar reflex, contracture and a kyphoscoliotic curvature of the spine are found. On the other hand, the mental faculties and sensation are rarely affected, except for occasional transient pains. A cure is impossible despite the free use of saline baths, strychnine, phosphorus, the iodides, electricity and quinine; death from pulmonary complications invariably occurs in from 1-4 years. Bulbar symptoms or muscular hypertrophy or pseudohypertrophy have not been observed. Pathologically there is a symmetrical degeneration of the neurons of all nerves below the hypoglossal, of the multipolar ganglion cells of the anterior horns and of the intra- and extramedullary portions of the anterior roots. The brain and the white columns of the cord are unchanged. The cause of the disease is unknown, but is probably due to an inherited weakness of the parts involved.

Varicose Veins.—A cure of this condition has been attempted in recent years by two methods of operation: (1) Ligation of the veins in several places, with or without the removal of small sections, or (2) excision of a considerable portion of the vessel in continuity. J. B. BLAKE (*Boston Med. and Surg. Jour.*, Dec. 13, 1900) reports 11 cases, of which number 7 were cured by operation, 3 were relieved temporarily or partially, and 1 was worse than before. The case of the patient who reported himself as worse than before is reported in detail as illustrating a type in which the operation by excision will probably be followed by little or no improvement. Of the 3 patients who were partially or temporarily relieved, 1 reported no pain but a small ulcer, 1 still had some pain, and in 1 the pains returned at the end of a year. The ages of those reported cured varied from twenty-five to fifty years. In all cases the scars were firm, not tender and not painful. Blake draws the following conclusions: (1) Operation for radical cure of varicose veins by dissection is not successful in

every case. (2) To obtain successful results, cases must be selected and certain conditions avoided and recommended to palliative treatment. (3) The condition which will probably militate against satisfactory results are: (a) Old age, or an extremely debilitated condition; (b) excessive and very extensive varicosity; (c) occupations which to an extraordinary degree favor the development of varicose veins. (4) Cases which may be cured by a thorough and careful operation are: (a) Local varix, even of marked prominence, particularly if thrombosis has occurred, either in thigh or leg; (b) extensive varix, limited to a single venous stem; (c) varicosities, which are a bar to passing civil service, military or naval examinations; (d) cases in youth and middle life; (e) cases in which the development of the permanent varicosity was at least partially due to more or less removable conditions, such as flatfoot, garters, etc. (5) Operation, even if not entirely successful, will usually relieve such complications as thrombosis, hemorrhage and ulceration. (6) The usual conditions which follow unsuccessful operations are: (a) Pain in and around the scar (b) general swelling and tenderness of the leg; (c) development of varicosities above or below the operation scar, but not at the site of the operation itself. (7) In all operated cases, general systematic treatment, as well as local treatment, should be prescribed, together with exercise and the avoidance of a continued upright position whenever possible. (8) Cure of symptoms does not necessarily mean the removal of all visible varicosities. (9) Comparison of relative methods of multiple ligation and continuous dissection must be based upon a larger number of cases than here recorded. (10) Bennett's conclusions and his extreme limitation of the indication for successful operation are too sweeping.

Tetany Following Intoxication.—F. DAMMER (*Münch. med. Woch.*, Nov. 13, 1900) reports the case of a patient who was treated with male fern and calomel for tapeworm and who, soon after the expulsion of the head developed typical symptoms of tetany with both Troussseau's and Chovstek's symptoms present. Since the ordinary causes of tetany were absent and since calomel has never been known to cause tetany, it was but proper to ascribe this to intoxication with male fern, which not rarely causes nervous symptoms of a less pronounced character.

Oxyurides in the Skin.—P. BARRAGALLO (*Gaz. Degli Osped e de Clin.*, No. 111, 1900) records the case of a boy, aged fourteen, whose previous history was negative, complaining of intense itching about the anus. This had become so intolerable that the scratching of the part by the patient's finger-nails had produced an eroded, inflamed area about the anus, which local applications of various ointments failed to relieve. About the anus there were excoriations, and rhagades, which were intensely painful, so much so as to interfere with the patient's locomotion and with his ability to sit comfortably. These symptoms had continued so long that the boy's health began to show impairment. The region about the anus was reddened and ex-

coriated and covered with a seromucous exudate, in which, especially in the discharge from the rhagades and excoriations, were found small, round, mobile, whitish, elongated bodies, about six millimeters long, which on microscopic examination proved to be *oxyurides*; some of these parasites were found in the stools, also ova in various states of development. A diagnosis of *oxuriasis cutanea* having been made, the following decoction was given: Senna leaves, one-half ounce; water enough to make a decoction of two and one-half ounces; to this add sodium sulphate, two drams, and simple syrup, five drams. This was divided into two parts, and taken with one day intervening. External treatment consisted of soothing salves to the excoriated area and the injection twice daily of a three-quart enema of a 1-1000 salicylate-of-sodium solution, made with sterilized water; at the end of a fortnight all evidence of these worms had disappeared and from this time on the patient convalesced nicely without interruption.

A Case of Hematuric Bronzed Disease.—An interesting report upon this uncommon disease, with the history of a case, has recently been contributed by NOBECOURT and MERKLEN (*Archives de Médecine des Enfants*, November, 1900). Beginning shortly after birth, the patient shows more or less jaundice, sometimes the color being almost black, with accompanying cyanosis of the face and extremities. The urine is usually scanty and contains blood. Abnormal temperature is more common than fever. Death frequently takes place in three or four days. The post-mortem shows the blood to be almost black; the liver is markedly congested with no obstruction to free passage of bile anywhere. The kidneys present multiple hemorrhages, most marked in the cortex; the uriniferous tubules also contain red blood-cells. Concerning the etiological side nothing definite can be said; it is usually regarded by many as infectious in character, although no special micro-organism has yet been associated with the disease. The case reported by the authors was that of an infant, ten days old, apparently born under natural conditions. From the first the infant showed icterus, cyanosis and subnormal temperature. It died three hours after birth. The autopsy findings of interest were mainly limited to the kidneys. The liver was bile-stained, but otherwise normal; the kidneys showed exterior hemorrhages in both the cortical and medullary portions. The bacteriological examination was considered negative.

Heroin Hydrochloride.—BERNARD LAZARUS (*Boston Med. and Surg. Jour.*, Dec. 13, 1900) calls attention to the stimulating effect of heroin upon the respiratory centers, its sedative action in conditions of irritation, its freedom from depressing action upon the heart or circulation, and its analgesic properties, as ascertained by various observers. He has studied the action of the drug in fifty-two cases, nine of which he reports in detail to illustrate its action in various diseases of the air-passages as well as in other conditions. These fifty-two were cases of pulmonary tuberculosis, bronchitis,

asthma, pneumonia, laryngitis, coryza, rhinitis and intercostal neuralgia. The writer used the hydrochloride of heroin because of its solubility in water, which property heroin itself does not possess. Under the administration of heroin hydrochloride the relief of pain, cough and dyspnea was obtained in all cases in from one to five days. Nausea and giddiness followed the administration of heroin hydrochloride in only two of the fifty-two cases. This happened after a dose of one-sixth grain, and promptly disappeared after the dose was reduced to one-twelfth grain. In one case the drug produced a gastric disturbance similar to that caused by morphine taken on an empty stomach, but this was not noticed when the drug was given after meals. Constipation resulted in three cases, but was easily relieved by adding a small dose of calomel to each dose of heroin hydrochloride. The bad effects only followed the larger dose of one-sixth grain and promptly disappeared on reducing the dose to one-twelfth grain. In most of the cases the dose given was one-twelfth grain of heroin hydrochloride every two to four hours, according to the severity of the symptoms. From a study of his cases Lazarus considers heroin hydrochloride a valuable drug, and he would rank it as a specific in pulmonary affections accompanied by cough. While in neuralgia its analgesic qualities, and in asthma and whooping-cough its anti-spasmodic effect should give it an important place in the treatment of these diseases.

Menstruation in the New-Born.—DR. KOUINDJY of Paris read a very interesting report of three cases of menstruation in newly-born children. (*Archives de Médecine des Enfants*, November, 1900). So rare has this been that Naegelé considered vaginal hemorrhage in this class of patients to be a myth; however, the author states that some isolated reports have been published by Underwood, Billard, Ollivier, Bovain, and a few others. In 1876 Dr. Cullingmont is said to have presented to the Manchester Obstetrical Society a report of some 32 collected cases. The 3 cases of Dr. Kouindjy were observed during the last three years. Two of the cases were healthy children born to the same mother, a sanguinous discharge appearing on the fourth and fifth days, respectively, after birth; the third case, likewise well built, had a similar vaginal discharge on the fourth day after birth. The writer finds that opinion is by no means uniform with regard to the interpretation of these hemorrhages. For some the discharge is the result of some lesion in the genital tract; others, on the other hand, like Camerer, believe that the bleeding is the result of disturbances in the pelvic circulation induced by a hurried ligation of the cord. A few like Ollivier, Pinard and the author, fancy that many are genuine instances of precocious menstruation.

Lichen Planus of the Urethra.—Lichen planus occurs quite frequently upon the oral mucous membrane and cases have been described in which the larynx and the anus were involved. A unique case, however, is that of E. HEUSS (*Monatshft. f. prakt.*

Dermatolog., Nov. 15, 1900). He had under treatment a patient affected with lichen planus of the mouth. A constant irritation in the urethra led to a urethoscopic examination with the result that another patch was detected in the middle of the penile portion. The administration of arsenic for two months resulted in a complete cure.

An Antemetic.—Following the anesthesia of ether and chloroform nausea and vomiting have come to be considered almost the rule and, although frequently favorably influenced by various methods, they are seldom entirely controlled. L. J. HIRSCHMAN (*N. Y. Med. Jour.*, Dec. 15, 1900) has recently observed thirty cases in which he has administered 10 to 15 grains of chlorethane about one-half hour before the anesthetic is given. It is preferably given dry on the tongue and followed by a little warm water. The amount of anesthetic used was diminished from one-third to one-half. None of the patients was nauseated during the operation, only ten per cent. were nauseated afterward, and only one vomited more than twice after coming out of the influence. The drug is supposed to be both a local anesthetic to the mucous membrane and a sedative to the nervous system.

Enlarged Malarial Spleen Treated Hypodermatically.—V. PIGA (*Gaz. Degli Osped e de Clin.*, No. 111, 1900) records the case of an eighteen-year-old lad, in whom, in addition to quinine treatment, he employed injections of an iodine-potassium-iodide solution, after the following formula:

Potassium iodide..... 2.0 (3 ss)
Iodine pure..... 1.0 (gr. xv)
Distilled sterilized water.. 100.0 (3 iii ss)

About thirty minims of this solution was injected, at first twice daily, then once daily and finally every other day until at the end of seven weeks the spleen was no longer to be felt and all pain in the left hypochondriac region, which from the beginning of the disease had been most painful, had disappeared.

Subjective Symptoms of Neurasthenia.—Among the most alarming and disagreeable symptoms of neurasthenia, L. HOEFLMAYR (*Münch. med. Woch.*, Nov. 13, 1900) mentions those due to irritation of the vagus. The physician is usually called at night to see the patient, who, struggling with extreme dyspnea and cardiac pain, seems to be in the last stages of an organic heart lesion. Cold perspiration usually covers the entire body; the lower extremities feel cold, and the pulse is increased in frequency and often arrhythmic, though not weak. A history of constipation can usually be elicited and a large dose of castor oil usually brings relief, so that it is probable that the symptoms are due to irritation of the end-filaments of the vagus in the intestines through gases of putrefaction. The whole process seems to be a defense on the part of the body to limit self-intoxication. The characteristic headache is another very common and disagreeable symptom of nervous exhaustion which may also find an explanation in auto-intoxication. This is also relieved by the liberal use of cathartics.

THERAPEUTIC HINTS.

Ihle's Paste.—For inflammatory and parasitic skin diseases the formula is:

Resorcin..... 0.7 (gr. x)
Starch
Zinc. oxid.....
Lanolin
Vaseline..... aa 8.0 (3 ij)

Morphinism.—If the drug be suddenly withdrawn, writes Gilman Thompson, severe gastrointestinal and cardiac symptoms may follow. Therefore gradually reduce the quantity, so that it may be omitted after two weeks. Meanwhile give strychnine and digitalis in full doses, and warm baths or hot packs to quiet restlessness. The vegetable astringents catechu and kino will control diarrhea. Milk, eggs, broths, custards, and other assimilable foods, should be given every two or three hours. The patient requires moral support, restraint and close observation for a long period.—*Practical Medicine*.

Mumps.—Even mild cases require rest in bed, writes Jules Comby, as prophylaxis against complications. Fatigue favors the development of orchitis. A milk diet, a purgative such as calomel, scammony, jalap, or a Seidlitz powder, the external application of opium-and-belladonna ointment, and the spraying of nose and throat with boiled water or a solution of boric acid or naphtol constitute the treatment of mild cases. Counterirritation, continuous cold, and massage, are not recommended. In severe cases cool baths at 64° to 68° F., three or four times a day, with acetate of ammonia, strychnine, caffeine, or quinine, reduce the temperature and promote comfort. Orchitis requires rest and emollient applications, the active treatment by massage, leeches, blisters, etc., often resulting in atrophy. For the deafness following mumps, potassium iodide, quinine, and pilocarpine are advised. For the nervous symptoms, the wet sheet, bromides, musk and ether. Where a grave anemia persists the indications are iron, quinine, cod-liver oil, iodotannic syrup, etc., and change of air, with perhaps a course of sea baths.—*Twentieth Century Practice*.

Gastric Cancer.—The problem, write William Osler and T. B. McCrae, is to nourish an individual with impaired gastric functions. Food should be given in small amounts, concentrated, and very digestible. Liquids should be given sparingly, the great thirst being relieved by hot water half an hour before meals and by enemata. Milk, raw or modified, is mostly borne well in small amounts, especially if salt is added. Soups, meat extracts, finely-minced, tender meats, eggs and stewed fruits are helpful, carbohydrates promote fermentation, and are limited in amount; the coarser vegetables and the fats should be omitted. The indulgence of special longings gratifies the patient. When necessary nutrient enemata may be given. As stomachic, condurango with hydrochloric acid is beneficial, and

quassia, gentian, calumba, or nux vomica may be used. Hydrochloric acid and pepsin promote digestion. Good whiskey taken neat or with apollinaris or soda-water is helpful. Lavage is indicated in cases with motor insufficiency, especially if there is dilatation. Hemorrhage and ulceration are no contra-indication, and the washing removes adherent decomposing and irritating material. As a general tonic arsenic usually does best, and:

B	Ac. carbol. vel creosot.....	0.065 (m. i)
	Tinct. iodi.....	0.13 (m. ii)
	Glycerin.....	4.0 (3 j)

will allay fermentation. Lavage is best at bed-time and at least four hours after a meal. It may be performed with plain water or solutions of boric acid, thymol, salicylic acid, or sodium bicarbonate.

—*Cancer of the Stomach.*

Vaginismus.—Remove local cause such as inflamed hymen, irritable urethral caruncle or carunculae myrtiformes, fissures or inflammations. Fissures of the hymen are best treated with four-per-cent. chloral hydrate applications; fissures of the bladder-neck by overdistention with strong nitrate of silver and bougies left to melt in the urethra, of:

B	Cocainæ Hydrochlor.....	0.75 (gr. xii)
	Ol. theobrom	q. s.

Div. in bacilli, No. xii, and insert one morning and evening. The general treatment consists of warm hip-baths, iodoform, gram 0.3 (gr. v), suppositories, atropine ointment, gram 0.12-30.0 (gr. ij-3 j), and the application twice a week of silver nitrate, gram 0.7-30 (gr. x-3 j), to vulva and hymen. Gymnastics, horseback-riding, bicycling, hydrotherapy, cheerful company, and avoidance of attempts at sexual intercourse tend to remove the abnormal sensitiveness. If these methods fail, the vaginal entrance is forcibly distended under anesthesia, and subsequently a glass plug is inserted morning and evening for a couple of hours.—*Garrigues in Diseases of Women.*

Whooping-Cough.—Da Costa preferred quinine sulphate in full doses or chloral with or without bromides and a spray of sodium bromide, gram 1.3 to 30.0 (gr. xx-5 i), with gram 0.12 (m. ii) of fluid-extract of belladonna added. The paroxysms are lessened in severity by:

B	Codeinæ sulph.....	0.06 (gr. j)
	Ac. carbolic.....	0.5 (m. viii)
	Syrupus.....	15.0 (5 ss)
	Glycerin.....	30.0 (3 i)
	Syr. limonis.....	15.0 (5 ss)

Sig.: One tablespoonful every two or three hours. Keating uses a spray of:

B	Ammon. bromid.	
	Potass. bromid.....	aa. 4.0 (3 i)
	Tinct. bellad.....	4.0 (3 i)
	Glycerin.....	30.0 (3 i)
	Aq. rosæ. q. s.....	ad. 120.0 (3 iv)

The diet regulated, the clothing warm, and open-air exercise are advisable.—*Hughes in Practice of Medicine.*

Chronic Gastritis.—A strict dietetic regimen, writes Gilman Thompson, must be carried out

faithfully for two or three weeks, and it is important to give minute details in writing. Meals should be regular and preceded and followed by half an hour's rest lying down, and the food must be slowly and well masticated. For severe cases milk is recommended, six to eight ounces, with vichy or soda-water and salt added, every two and a half or three hours. If there is much nausea add cerium oxalate, gram 0.2 (gr. iiij), and sodium bicarbonate, gram 0.35-0.7 (gr. v-x), to each feeding. If undigested curds appear in the stools the milk should be lessened in quantity or temporarily peptonized. Some patients digest best boiled milk or buttermilk. The milk may be supplemented by fresh meat-juice, scraped beef, white of egg, and granum. Less severe cases do best on a meat diet of lean roast beef, tender rare beef-steak, chops or roast mutton with dry toast or stale bread, and a minimum of butter. Boiled rice baked potato, spinach, shredded wheat, toasted soda crackers, thin dry gingersnaps, granose, zwieback, baked apples, orange-juice, baked custard, and plain blanc-mange are all digestible, eggs, soft-cooked or raw, are borne well by some, and the soft parts of raw or stewed oysters. Foods to be prohibited are fried foods, twice-cooked meats, the coarser vegetables, sweets, pastry, cakes, puddings, and strong condiments. Omit drinking with meals. Kumyss, black coffee, hot water, beef extract or bouillon with hot water, should be taken when thirsty, and water, hot or cold, not iced, should be taken freely on retiring, on rising, and several times during the day. Moderate outdoor exercise and daily sponge-bathing with cool water, followed by friction, are to be advised when suitable. If there is a lack of gastric juice hydrochloric acid, gram 1.3 (m. xx), may be given immediately after meals, and pepsin, gram 0.35-0.7 (gr. v-x), may be added. Pancreatin and soda bicarbonate, aa. gram 1.0 (gr. xv), half an hour after meals, and silver nitrate, gram 0.008 (gr. 1/8), in obstinate cases, are recommended. Nux vomica tincture, gram 0.7 (m. x), may be given with gram 4.0 (3 j) of tinctures of gentian, cinchona, or cardamom before meals. Constipation requires podophyllin, gram 0.006 (gr. 1/10), cascara, or sodium phosphate or sulphate. Lavage is of value. In obstinate cases use a two-per-cent. alum solution; for fermentation three-per-cent. boric acid, and for mucus, five-per-cent. sodium-bicarbonate solution. In lieu of lavage, hot alkaline water taken before each meal will dislodge mucus and wash the stomach contents into the bowel.—*Practical Medicine.*

Alopecia.—When this is dependent on general morbid conditions, an exciting lotion is:

B	Pilocarp. mur.....	0.50 (gr. viij)
	Ol. gaulther.	
	Ol. santali.....	aa. gtt. 5 (gtt. v)
	Tinct. cantharid.	
	Glycerin.	
	Spt. camph.....	5.0 (grs. lxxv)
	Alcohol.....	80.0 (5 iiiss)

Rub lightly into scalp once a day.—*Brocq in Jour. de Med. de Bordeaux.*

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BELLEVUE MEDICAL BOARD AND THE INVESTIGATIONS.

THE disclosures of disgraceful mismanagement in the administration of municipal hospitals has culminated in Bellevue's recent scandal. The abuse of patients, extortions from the poor, neglect and cruelty, are only what one might expect in an institution where every non-medical appointment is obtained through "pull," and where, it is hinted, "influence," as well as merit, is necessary for the well-being and comfort of every one within its walls. We know that every large municipal hospital in the country, the good angels of which are politicians, suffers from some of the abuses that have made Bellevue's name scandalous. But what we are not prepared for is to find Commissioner Keller, in his energetic newspaper reform, laying some of the burden of mismanagement on the medical staff. We hope that it is merely accidental that, in wielding his unaccustomed scourge, he has let the lash fall upon the men who have in spite of difficulties served Bellevue so well.

The Medical Board of Bellevue is one of the best that can be found in any hospital in this country. Its members have seen the abuses, the deficiencies, the mismanagement, at every turn; they have complained, they have protested, they

have expostulated. In reply they have received promises, and with these they have had to be content.

Every physician on the Board, as well as the staff, has learned, after all his efforts at reform have been ignored, that just so much red-tape must be used in order to give the vendors of red-tape a livelihood. Therefore he has submitted to the methods in order to get what was necessary for his patients. If, in order to be sure that his patient would get an ounce of whiskey, he has been obliged to order a pint, he has ordered the pint. The amazing thing is that the physicians connected with Bellevue should have been able to do such good work against such odds.

And yet a slur is now thrown against them for having, as it were, connived at deeds of mismanagement. If they knew what was going on why did they keep silence? Of course they knew. What physician connected with Bellevue does not know the state of affairs there? But they have spoken, and have learned that they might as well try to move a mountain.

Once more we reiterate the belief that the proper mode of governing this large hospital, with its important dependencies, is by means of the trustee system, as proposed by the new Charter Revision. May this city see an early inauguration of this system.

CYCLIC ALBUMINURIA.

SINCE Cotugno demonstrated albumin in the urine of dropsical patients in 1770 for the first time, but more especially from the time when Richard Bright, more than half a century later, showed the association of albuminuria with lesions of the kidney, the significance of the relationship implied has remained scarcely unchanged through an entire medical generation. With the last few years, however, medical opinion has somewhat shifted from its original attitude and newer outlooks have abundantly widened the narrow confines of past and cherished interpretations. To many, even at the present time, the persistent presence of albuminuria is irrevocably associated with organic disease of the kidneys.

Gradually, as closer attention to detail and more perfected technic brought forward results scarcely reconcilable with older views, a few were disposed to hold themselves aloof for the traditional beliefs. The justness of such a position has been repeatedly shown in the numerous contributions of Pavy, Senator, Granger Stewart, Leube, Teissier and a host of others.

Under many conditions it has been shown that albumin may be present apart from any existence of permanent renal lesion or acute febrile disease. The influence of strong emotions, intellectual fatigue, cold bath, etc., is a point in question; the observations of Hwass based on the examinations of more than 600 healthy soldiers clearly enough demonstrate how muscular fatigue induces the elimination of albumin for short periods. MacFarlane has again shown this in his interesting studies of the urines of football players; for twenty-four hours or more after the games the urines of these players contained not only large amounts of albumin, but numerous casts, hyaline and granular. Some like Possner have even gone so far as to state that albumin may be found in the urine of everyone; these observations amount probably to no more than that by special methods a minute amount of albumin may be detected in everyone's urine. This, however, is not what is meant by the clinical term albuminuria.

A paper on the cyclic albuminuria of adolescence, recently published by Dauchez, of Paris, will renew the interest of many on this condition to which Pavy, Teissier, and Merley have given some of their best efforts. This rather uncommon and really little-understood affection begins usually in adolescence or early adult life, being most common in boys. In some cases heredity has been shown to play an important part; and often enough the existence of cyclic albuminuria is only accidentally discovered, as in a medical examination for life insurance. Whilst some have suffered from nervousness, headache, languor, dyspepsia, and anemia, many have been strong individuals in apparently perfect health. The albuminuria is essentially intermittent, being present often only during certain times of the day. On the whole, it may be said that the albumin is not detectable, by the usual tests, in the morning; then as the day goes on the albumin appears with the approach of midday, and thereafter becomes somewhat less during the rest of the day, and sometimes entirely disappears. The position of these individuals seems to be a very important factor in the determination of the albumin elimination. If they are kept in bed during the day the albumin disappears; some exceptions to this have, however, been noted by a few observers. Casts may or may not be found; hyaline casts are not unusual, but granular casts have only occasionally been observed. These cases go on for months, or years, in this condition at the end of which time the albumin has frequently been shown to dis-

appear, leaving the individuals apparently no worse off than others. Pavy has mentioned one case in which the intermittent albuminuria continued from youth up to the forty-third year.

The existence of these phenomena as a distinct clinical type is no longer questioned by those who have had much experience in this class of affections; most of the discussions relate to the probable pathology of the condition. Two different views are at present held by clinicians regarding the side of the question. A certain group, among them Labadie-Lagrange, recognize under the name cyclic albuminuria of adolescence a type of disease in which no true nephritis can be demonstrated; others like Lecorché and Talamon do not accept this view but believe in the existence of a partial nephritis. Critical study of this form of albuminuria certainly shows that some cases grouped under this heading are truly dependent on localized or slowly-progressing nephritis, on the other hand, investigation establishes indubitably the occurrence of a cyclic albuminuria without any evidences of tangible kidney changes other than those embodied in albuminous degeneration—a finding certainly not in itself sufficient to warrant classifying under the heading of nephritis as that term is ordinarily understood in pathology. The fact remains that all albuminuria must be regarded as pathological; to speak of it as physiological is a misnomer. It is no more physiological than a heart murmur of anemia. Evidence tends to show that cyclic albuminuria is inevitably the result of some disturbance of the normal cell activity; in some patients it is nephritis, in others the lesion is of much lesser magnitude.

The wealth of opportunities for further studies has already appealed to some investigating minds and interesting conclusions will probably not be long in forthcoming from more than one source. The practical importance of the whole question is no better shown than in its relations to life insurance.

A CHAPTER IN MEDICINE.

EXACTLY twenty-one years ago the second edition of Bristowe's excellent *Practice of Medicine* was issued. In it the author says: "It would seem, then, that neither heat, water, nor decomposing organic matter is alone capable of evolving the malarious poison." "The miasm may be carried by the wind," "is absorbed in its passage across water." "Is it a gas, is it some decomposing organic substance, is it a living thing?"

Just one year later, in 1880, Laveran saw the plasmodium *malariae* in the red blood corpuscles

of malarious patients in Algiers. Since that first definite observation the malarial plasmodia have been found in the red blood corpuscles of malarious patients everywhere throughout the world, thus establishing one great factor in the etiology—universality of the cause wherever the disease exists.

Nine years later Golgi differentiated two varieties of this plasmodium which differed not only in the form of the mature spherules but also in the length of time required for their sporulation—in this corresponding to the difference in periodicity of the two types, tertian and quartan agree, which require two and three days respectively for their recurrence.

A few months afterwards the "aestivo-autumnal," or crescent, form of the plasmodium was discovered and was found to be the cause of the most dangerous, or "tropical," form of malaria.

Laveran had noticed "flagellated" bodies which he regarded as especially active forms of this parasite. These Manson conceived to be spores for reproduction through mosquitoes feeding on the blood possessing them. This theory of Manson has been confirmed by the microscopical and other investigations of Major Ronald Ross in India. He found pigmented parasites in the stomach muscles of mosquitoes fed on malarious subjects, and invariably he failed to find these parasites there in mosquitoes fed on healthy or non-malarious subjects. The Anopheles was found to be the particular mosquito, preferably the Anopheles claviger, never the Culex.

Dr. MacCallum of Johns Hopkins found the flagellate bodies of the halteridium fertilizing the more granular blood corpuscles of the crow's blood in the manner of conjugation, producing thus a body containing pigment which he called a vermiculus, capable of penetrating the stomach muscle of the mosquito and thus accounting for Ross's pigment bodies there found.

MacCallum had seen this conjugation in the crescentic human form. Grassi and Koch had confirmed this observation. Thus sporulation and conjugation were both methods of reproduction of the parasite.

Christophers and Stephens found that black-water fever was a special form of tropical malaria. Dr. Elliott protected himself in Nigeria from malaria by warding off mosquitoes. Drs. Sambon and Low have lived through a malarial season in Ostia, the most deadly region of the Italian Campagna, without taking malaria, merely protecting themselves by netting from the night-prowling

Anopheles, whilst their windows were left open to the night air. Meanwhile all others resident near them, but unprotected from mosquitoes, were without exception attacked by malaria. Finally the tertian malaria has been produced in the healthy son of Dr. Patrick Manson in England by having him bit by mosquitoes sent from Italy for that purpose after they had been fed on malarious subjects.

Koch found in Africa that natives acquired a certain immunity, that this immunity was less in their children and that whites unused to malaria were peculiarly susceptible to its invasion when bitten by mosquitoes that had fed on natives in a malarious neighborhood and that quinine was a perfect prophylactic.

Here, then, is a well-rounded chapter in medical research whose value as definite scientific knowledge in its applicability to one of the most widespread of diseases, cannot be overestimated. No better illustration could be given of the progressive character of scientific medicine in the nineteenth century. Nor could a better illustration be given of the fact which is becoming more evident as time goes on, that we owe our best and most enduring advances not to any one man alone, but to the associated labors of many.

ECHOES AND NEWS.

NEW YORK.

College of Physicians and Surgeons.—Dr. James D. Voorhees of the class of '93, has just been appointed secretary of the Faculty of the College of Physicians and Surgeons.

Kings County Medical Association.—At the last regular meeting of this Association, held January 8th, Dr. L. Grant Baldwin showed specimens of uterine fibroids and Dr. Louis C. Ager read a paper on "What Determines the Real Value of Medical Papers?"

New York State Journal of Medicine.—This is the title of a new monthly periodical to be devoted to the interests of the New York State Medical Association. The chairman of its editorial committee is Dr. James Hawley Burtenshaw. We predict a useful and long life for the new endeavor.

Blackmail Protection.—A bill for the protection of physicians and surgeons from blackmail and unjust malpractice suits is also to be introduced this session. Its most important provision will be the requirement of a bond from any one bringing a suit against a physician for alleged malpractice. This bond is to be forfeited in case the judgment goes against him. This idea is based on a somewhat similar provision in English law.

Typhoid at Cortland.—This city is the center of an epidemic of typhoid fever. The city hospital is full of patients and the management is compelled to turn applicants away. Physicians are powerless and many factories and business houses are crippled because of the illness of their employees. The cause of the epidemic has not yet been determined.

Death From Strychnine.—An inmate of the Montefiore Home, forty-two years old, is reported to have died there rather suddenly last week after taking a dose of strychnine sulphate prescribed by one of the doctors for influenza. The patient had locomotor ataxia and the dose given him is said to have been $\frac{1}{50}$ of a gram. This dose, $\frac{1}{2}$ grain, if correctly reported, is sufficient to cause death. The man died two hours after it was administered.

Antivaccinationist Inquiry.—President Michael C. Murphy of the Health Board last week began proceedings against Dr. Montague R. Leverson of Fort Hamilton and President of the Anti-Compulsory Vaccination League, who says he has been treating cases of smallpox without reporting them. Col. Murphy had two affidavits made by men who heard Dr. Leverson make the statements in regard to his treating of smallpox. As the matter stands now, Dr. Leverson's simple statement is not sufficient, it is believed, legally to hold him. He will be called upon to retract or formally affirm the statement. In the former case, the Health Board will feel satisfied, but in the latter the Board will take immediate action. It is a criminal offense not to report cases of contagious diseases to the authorities.

Grip Epidemic.—There are hundreds of cases of grip in Albany, and that this epidemic of influenza will have more than its usual run in New York City and throughout New York State this year is evidenced by the reports received so far by the State Board of Health. Since the inception of the epidemic, in 1889, it has caused about 52,000 deaths in this State. During the first year 5000 people died of it. This was increased to 8000 in 1891 and in 1892, after which years the death-rate from this cause decreased each year to 2500 in 1898-99. The State health authorities then thought it had had its run and were surprised at its general prevalence in 1899-1900, when it caused nearly 12,000 deaths, starting in with 600 in December, 1000 in January, 1250 in February, 3500 in April, 1500 in May, 400 in June.

Tuberculous Meat.—Twenty-five carloads of tuberculous cattle have passed through or have been shipped from West Albany to New York City within the past ten days. How many head of diseased cattle have found their way into the New York City market during the recent fall months the State authorities do not pretend to estimate. A special report upon this carload was made to the State Agricultural Department by one of its inspectors, who has been operating at the West Albany Cattle Yards for several

weeks past. This inspection was instituted to discover violations of the bob veal law, and the disclosures which resulted otherwise were of a startling nature. It is during the fall that the farmers weed out undesirable cattle, and agents scour the country for such animals, offering nominal prices. The carload mentioned is a sample of what has been going into New York City for some weeks to be made into bologna sausage, though the "best" cuts find a resting-place upon the butcher's block.

Coming Medical Legislation.—More than two hundred bills relating to medicine are introduced into the Legislature at every session. The recommendation of the Charter Revision Commission that a physician may hold the office of President of the Board of Health in this city is regarded by medical men as of great importance. At the last session of the Legislature a bill making a similar amendment to the charter of the greater city received the endorsement of the State Medical Society, and that body, as well as the Association, will use its influence again this year in favor of the revised charter provision. As most of the questions dealt with by the Health Board in its regular routine are medical questions, a doctor who acts from his own knowledge can often be more efficient than a layman who has to depend upon others for expert advice.

Midwife Regulation.—A new bill for the licensing and regulation of midwives is another which will be pushed. As will be remembered, the bill introduced last year by Senator Plunkitt for the same purpose passed Senate and Assembly, and was signed by the Mayor. Gov. Roosevelt, however, withheld his signature. The new bill, it is understood, will differ from the old chiefly in that it designates the Board of Regents of the State of New York, instead of the City Board of Health, as the body intrusted with the prescribing of regulation, the conduct of examinations, and the issuing of licenses. This change, it is said, removes the cause which kept the Governor from signing the bill last year. It is thought safer to vest the large discretionary powers in the Regents than in a possibly Tammanyized board appointed from among the sanitary inspectors. Many doctors think it out of the question to abolish midwives entirely, but it is hoped that by a rigid examination ignorant and criminal women can be driven out of the profession and its standard gradually raised. At present licenses are granted to midwives by the Board of Health on the recommendation of two physicians.

Gouverneur Hospital Open.—The new Gouverneur Hospital building at the foot of Gouverneur Street was thrown open to the public last week for inspection. There was no formal ceremony, but about five hundred persons took advantage of the opportunity to make a tour of the hospital. The building is four stories high, of brick, has a frontage of 125 feet and extends back about 175 feet. With its equipments it cost \$200,000. The decorations are of white enamel,

even to the chairs, which lends a very bright aspect to the interior. The building is fireproof and everything in it is of the latest design. The hospital will begin to receive patients this week, when the patients in the old hospital will be transferred to the new one. On the first floor of the building is the office, the doctor's reception room and the medical board room. There is also the accident ward and the children's ward, which contains twelve cots. The male medical ward has twenty-eight beds and is on the second floor. The nurses' bedrooms, sitting-room and head nurse's room are also on this floor. On the third floor is the male surgical ward. This has accommodations for twenty-six patients. The operating-, receiving- and sterilizing-rooms are on the top floor, with the women's ward, which has twenty-four beds, the kitchen and laundry.

Expert Testimony and Legislation.—Some sort of bill will doubtless be introduced regarding the regulation of medical expert testimony in the courts, and possibly for the licensing of experts. The reintroduction of last year's bill requiring the use of a certain type of bottle for the putting up of poisons and certain other drugs is also expected. This bill passed both Senate and Assembly last year, but was never signed by the Governor. If enacted, it would apparently operate chiefly for the benefit of the manufacturers of the required sort of bottle. The State societies introduce no bills of their own this year, and their Committees on Legislation will probably report adversely on at least 90 per cent. of the bills introduced from other sources. Without the strong support of the medical profession, it has not been easy in the past to get medical bills through the Legislature. Legislators can hardly be blamed for thinking that "when doctors disagree" it is not for them to decide. Said a man long identified with medical legislation: "A united medical profession has great influence in the Legislature of the State, and it should be the duty of medical societies to consider the practical solution of questions relating to sanitation and public health. If they can agree upon a bill that has for its ultimate object the benefit of the public, the support given by the Legislature is surprising."

PHILADELPHIA.

Officers of Obstetrical Society.—At the regular election held January 3d the following officers were elected for the ensuing year: President, Dr. John C. DaCosta; Vice-Presidents, Drs. J. M. Fisher and Geo. M. Boyd; Secretary, Dr. Frank W. Talley; Treasurer, Dr. John G. Clark.

Obituary.—Dr. R. J. Linderman, a former Bucks County practitioner, but for seven years a resident of this city, died January 6th of heart and kidney disease. Dr. Linderman served one term as State senator and held other public offices in addition to caring for an extensive practice.

Prevention of Tuberculosis.—At the January meeting of the Board of Health, committees from the County Medical Society and the Society for the Prevention of Tuberculosis urged

that the following measures be adopted: (1) The registration of all cases of tuberculosis by the Board of Health; (2) the distribution of circulars of information for the prevention of the spread of the disease and for measures to check its development; (3) the sending of assistant medical inspectors to the homes or residences of all poor consumptives with instructions and supplies for fumigation and treatment of the disease; (4) the disinfection by the Board of Health of every room or dwelling at any time occupied by a consumptive; (5) the registration for record at the Board of Health of every house in which the disease has existed at any time. The matter will be held under advisement by the Board of Health until it is decided whether compulsory registration is legal under the Act of 1895.

College of Physicians.—At the meeting of January 2d, Dr. John H. Gibbon reported an interesting case of gall-stones in which symptoms of appendicitis had been present. A supposed abscess of the abdominal parietes below and internal to the right iliac crest was found to lead directly into the gall-bladder, which was unusually low in the abdomen and contained more than fifty stones. Dr. R. G. Le Conte reported the two cases of operation for cirrhosis of the liver, noted in these columns December 22d, and gave a summary of the literature on the subject. The discussion, participated in by Drs. Deaver, Meigs, and others, showed a general belief that operation in the great majority of these cases promises but little. Through the courtesy of Mrs. Joseph Leidy, Jr., an oil painting of the late Dr. Joseph Leidy was presented to the College, Dr. S. Weir Mitchell accepting the gift in behalf of the institution. The regular election of officers for the College resulted as follows: President, Dr. W. W. Keen; Vice-President, Dr. H. C. Wood; Secretary, Dr. Thomas R. Neilson; Treasurer, Dr. Richard H. Harte.

Academy of Surgery.—At the meeting of January 7th Dr. Henry R. Wharton delivered the annual oration, taking as his subject "Wounds of the Venous Sinuses of the Brain." Five cases of his own and 65 from literature were reported. Treatment is not difficult when there is an external opening. If trephining be necessary it should be done at the point of traumatism rather than according to symptoms. The most important point is careful asepsis. Gauze packing is Dr. Wharton's choice of methods in controlling hemorrhage. Sutures may be tied in bow-knots, thus making the insertion of new sutures unnecessary when the packing is removed in from three to six days. The only objection to this method is that the open wound may prove an avenue of infection. Ligation allows closure of the wound, but is dangerous in itself and is not best in ordinary cases. Dr. R. H. Harte stated that judicious suturing would do much in some cases. Where the hemorrhage is great packing must be used to control it. If the hemorrhage can be stopped by

the finger or other means, suturing will often do well. Dr. Rodman believes that packing is more reliable than ligatures or sutures as the hemorrhage should be controlled with extraordinary rapidity. The ligation of cerebral vessels is not satisfactory. Next to gauze packing forceps are the most reliable in controlling hemorrhage.

CHICAGO.

Will of Charles Higgins.—The will of the late Mr. Higgins, which has been filed for probate, stipulates that St. Luke's Hospital shall receive \$10,000.

Sarcoma of the Pituitary Body.—Dr. Carl G. Swenson reported this case before the Chicago Medical Society, January 2d. Microscopic sections of the tumor of the pituitary body showed small and large round-celled sarcoma with occasional multinuclear giant-cells, and much congestion and hemorrhage.

Need for Vaccination.—There is no occasion for alarm in the fact that a few cases of smallpox have been discovered in this city and that the health authorities are taking strict measures to prevent its spread. The chief element of danger lies in the fact that recent cases have been discovered in the down-town district, and hence it is probable many people were exposed to the disease. Immediate action in the matter of vaccination is therefore the more advisable.

Free Duty on Pathological Specimens.—At a recent meeting of the Chicago Medical Society a resolution was offered and adopted that pathological specimens, which are now taxed at 20 per cent. on the cost of their production, should be admitted duty free, as they are used exclusively for scientific purposes and are of no commercial value. A copy of the resolution was ordered to be transmitted to each Senator from Illinois, and each member of Congress from this city.

Epithelioma and Healed Lupus.—Dr. David Lieberthal presented an interesting case of epithelioma which developed in the scar of lupus. Dr. Arthur Dean Bevan has seen a number of cases of epithelioma developing in lupus scars. He has likewise observed several cases of epithelioma developing in scars from burns and from lacerating injuries. He advocated surgical operations for the removal of the grossly-involved tissue and covering the surface with grafts.

Limitations of Clinical and Microscopical Evidence.—Dr. William K. Jaques read a paper on this subject. The microscope, with careful technic, at times gives results with almost mathematical accuracy which cannot always be claimed for the diagnosis dependent upon clinical symptoms alone. But in the use of the microscope the physician should keep in mind that most often the greatest safety of his patient and his own best mental development come through the close study of the clinical phenomena of disease.

Chicago Surgical Society.—At a meeting, held January 4th, Dr. L. L. McArthur showed a patient illustrating the Talma operation (operative establishment of collateral circulation) in cirrhosis of the liver. Dr. M. L. Harris reported a case upon which he performed the same operation in February, 1900, with an excellent result. Dr. Harris showed two cases of hip-joint disease treated by the Phelps method, the results being eminently satisfactory. Dr. Jacob Frank showed a man, seventy-one years of age, with an angioma of the tongue. He argued against operation in such cases, unless the growth of the tumor is rapid. Dr. John B. Murphy discussed the subject of surgery of the arteries. Dr. F. S. Coolidge mentioned some new points in tendon surgery. Dr. McArthur presented a specimen of circular adenocarcinoma of the rectum, which was removed by the Krasko operation without the disturbance of the sacrum.

GENERAL.

Plague Outbreaks.—The reports of an outbreak of the plague at Vladivostock in Russia are confirmed. There have been 19 cases, of which 15 were fatal. Four plague patients are still in the hospital and numbers are isolated.

An Antique Mosquito Remedy.—E. H. Plummacher, United States Consul at Maracaibo, has sent the following report to the State Department: "A simple remedy against mosquitoes has been employed in several places in South America and is equally well adapted to the temperate zone. It consists in planting the castor-oil plant around the house and premises." This is an old and exploded idea.

Enteric Fever and Smallpox in Galveston.—According to the report of the Marine Hospital Service there are a large number of cases of enteric fever prevalent in Galveston, Texas. One can only estimate them, for there is no ordinance that requires them to be reported to the Board of Health. Dr. William Fischer, former Health Officer, estimated the number about 450. There are 6 cases of smallpox and a considerable number of diphtheria and scarlatina.

San José Medical College.—The decision of The Philippine Commission in regard to the San José Medical College case (the point being whether that institution is owned and controlled by the United States Government or by the Church) unanimously refers the settlement of the questions involved to the courts, and provides Trustees, who, with the assistance of the Attorney-General of the Philippines, will inaugurate and prosecute the litigation. The sum of \$5000 is appropriated for the expenses of the suit.

Pan-American Congress.—The Third Pan-American Medical Congress will be held February 4th to 8th inclusive. Delegates can go either by the land-routes, which are all *via* Florida, or by the water-route from New York City. Those coming from south of Washington and west of Pittsburg will probably select the Flor-

ida route, while those from the northeast will find the Ward Line more convenient. The steamer "Seguranza" of the Ward Line leaves New York January 30th, arriving in Cuba on February 3d, the day before the beginning of the Congress. The new Ward Line steamer "Morro Castle," holding 135 cabin passengers, leaves Havana on February 9th, reaching New York February 11th. The round trip is \$70.00. Any one going *via* this route will be absent from New York twelve days. All information regarding transportation may be had from Dr. H. L. E. Johnson, 1402 L Street, N.W., Washington, D. C.

Any of the delegates going down by the Ward Line who desire it may, by a supplementary payment of \$25.00, return *via* Santiago. This trip will take from ten to twelve days, during which time the passengers live on the ship and have their meals there if they so desire. The party goes from Havana by rail to Cienfuegos in one afternoon, there taking the steamer to Santiago and from Santiago to Nassau in the Bahamas, and from Nassau to New York. The stay in these different ports will be for a day or more. There seems to be a great deal of anxiety on the part of the delegates going to the Congress about the accommodations for themselves and the ladies of the parties. This has been most elaborately attended to by the Reception Committee, of which Dr. A. Glennan, the Health Officer of the port of Havana, is chairman. Dr. Glennan has put the Government steam launches at the disposal of the Reception Committee. This Committee is composed of English-speaking Havana physicians and an auxiliary committee of ladies. When the steamers arrive from the different countries these launches will put out with the members of the Reception Committee, male and female, and will take the delegates and their families from the steamers in the launches. *La Lucha* says: "The Reception Committee is arranging to have a ladies' auxiliary committee from Havana's best society, which will meet the guests on their arrival in order to greet with becoming dignity the ladies in the parties of the delegates." They will accompany the guests to their hotels and help them install themselves and show them every attention during their stay in Cuba. The best hotels in Havana are the Telegrafo, Mascotte, Inglaterra and Pasaje. Rates are \$3.00 to \$5.00 per day for board and room, American plan, the prices depending on the size and location of the room. The latest news from Cuba is that the Information Bureau will be at 105 Prado, Havana. The American headquarters will be near by.

According to present indications it is judged that there will be about 1500 delegates at the Congress. Of these probably 500 will be Cubans, 300 or 400 from the United States, 200 from Mexico, 100 from Argentine Republic and Uruguay, 50 from Brazil, 50 from Venezuela, and as many more from Colombia and other countries. There will be also quite a delegation from Chili and Peru which could not have attended the Decem-

ber meeting of the Congress, as it would have interfered with the Latin-American Medical Congress which was to have taken place there at that date.

Preliminary programs have been received from about half of the sections, these only represent papers that have been reported to the Secretary in this country, all the titles that have been sent to Cuba not having been sent to him as yet. The final program will not be made up until a few days before the Congress begins.

The Entertainment Committee has arranged a program which adds an attractive feature to the meeting. During the week there will be numerous excursions and entertainments for the delegates, both in Havana and the neighboring cities. A large ball will be given at the Tacon Theater. This will be under the management of a subcommittee and an auxiliary ladies' committee. The committee is sparing no pains to make the ball the great social feature of the week. On another day an excursion will be made to the sugar plantation of Mr. LaCoste in Santa Lucia, near Havana, on the Government transports. Refreshments will be served at the plantation or on the vessels. Mr. Ramon Pelayo has invited the members of the Congress to his plantation, Rosario, one of the largest in Cuba, where he will entertain them at luncheon or dinner.

Mr. Pessant will take the delegates to his establishment on the other side of the Bay and will entertain them there. The Association of Dependientes has also volunteered to entertain the delegates during their stay in Havana. There will also be an excursion to Matanzas to see the Caves of Bellamar in the Yumuri Valley.

It is requested that all delegates intending to go to Havana send their names to the Secretary, Dr. Guiteras, in order that he may determine how many will be present from this country.

Bellevue Medical Board and Dr. Moore's Dismissal.—It seems probable that the Medical Board of Bellevue Hospital will refuse to recognize the orders of Commissioner Keller, who has nominally suspended Dr. Moore on charges. There was a meeting of the Board on Tuesday last and the suspension of Dr. Moore was disapproved. When the report of the meeting was given to the Commissioner he refused to accept it.

Bellevue Appointments.—Commissioner Keller has removed Superintendent O'Rourke and appointed Dr. George Taylor Stewart to this office. Dr. Stewart was formerly connected with the Manhattan State Hospital. Since Dr. Stewart's accession a number of attendants have been dismissed for intoxication. The custom which heretofore has prevailed of employing alcoholic ward graduates will fortunately be done away with. So says Dr. Stewart.

Mills Training School.—As a result of the charges of brutality made against the pupil nurses of the Mills Training School on duty in Bellevue Hospital more than one-half the students in the school have been dismissed, have resigned or are about to leave.

CORRESPONDENCE.

ARMY MEDICAL CORPS.

To the Editor of the MEDICAL NEWS:

DEAR SIR: Your attention is called to the fact that there is at present pending in Congress certain proposed legislation that seriously disturbs the present status and efficiency of the Medical Corps of the United States Army.

The proposed law is entitled "An Act to Increase the Efficiency of the Military Establishment of the United States" (Senate Bill 4300), and in a very general way modifies the existing organization of the Army, while at the same time it provides for a damaging and offensively invidious discrimination against the Medical Corps. This fact is shown in the following particulars:

1. It decreases the percentage composition of the Corps in the grades of colonel from 3.1 per cent. to 2.4 per cent.
2. It decreases the percentage composition of the Corps in the grade of lieutenant-colonel from 5.2 per cent. to 3.7 per cent.
3. It decreases the percentage composition of the Corps in the grade of major from 26 per cent. to 18.6 per cent.
4. It increases the percentage composition of the Corps in the grade of assistant surgeon with the ranks of captain and first lieutenant from 65 per cent. to 74.7 per cent.

The significance of these proposed changes can be understood when it is remembered that, even under the existing law, it requires more than eighteen years to reach the grade of surgeon with the rank of major, while under the proposed law it will require at least twenty-five years to reach the same grade and rank. With this fact reduced to a mathematical demonstration, the inevitable result will be, first, that the more worthy young men will not apply for commission, and, secondly, that the relatively less worthy men who do enter the service, discouraged by the certain impossibility of reasonably prompt promotion, will resign, leaving their places to be filled by untrained and consequently less efficient men. The ultimate disaster from this contemplated change, however, will consist not alone in a lowered status of the medical service but in (1) increased disease and death-rate among the men, (2) a diminished and otherwise weakened force on the firing line, and (3) a material augmentation of the pension-roll.

In view of the foregoing facts and in view of the fact that every other corps of the Army is better graded than is the medical, every member of the medical profession is hereby earnestly solicited to send at once to his United States Senator and Congressman an urgent and emphatic protest against the proposed provisions in Senate Bill 4300 relative to the Medical Corps of the United States Army.

CHARLES A. L. REED, M.D.,
President of the American Medical Association.

OUR LONDON LETTER.

[From Our Special Correspondent]

LONDON, December 29, 1900.

THE EPIDEMIC OF ARSENICAL POISONING FROM BEER-DRINKING—REPORT OF THE MEDICAL OFFICER OF HEALTH FOR MANCHESTER—NUMBER OF DEATHS FROM PERIPHERAL NEURITIS DOUBLED IN MANCHESTER—INFANTS POISONED BY THEIR MOTHERS' MILK—THE DIFFERENCES BETWEEN THE STAFF AND BOARD OF THE NATIONAL HOSPITAL FOR THE PARALYZED AND EPILEPTIC—FAILURE OF THE PROPOSED INQUIRY—AN "IMPERIAL PHARMACOPEIA"—THE USE OF BORIC ACID AS A FOOD PRESERVATIVE UPHELD.

DR. NIVEN, Medical Officer of Health of Manchester, has issued a very important report on the "epidemic" of peripheral neuritis due to drinking arsenical beer. Directly on ascertaining that arsenic had been discovered in a sample of beer, he improvised a laboratory and examined the brewing sugars used in the twenty Manchester breweries and the glucose used in the manufacture of jams and cheap sweets. In forty-six specimens of glucose from the breweries arsenic was found only in that emanating from one firm which contained it in considerable amount. Five of the twenty breweries were using this material. The glucose used in manufacturing the sweets was free from arsenic. It appears that about 2000 cases of arsenical poisoning from beer-drinking have come under observation in Manchester. No doubt in addition to these there must have been a large number of milder cases which were never seen. No cases have yet been authoritatively described in which death was due to arsenical poisoning, but the mortality statistics give important information. The deaths from peripheral neuritis have nearly doubled in 1900. Moreover, the difference is confined to recent months, for up to the May there were only five deaths from this cause. Taking the first 48 weeks in the years 1897, 1898, 1899, and 1900, the deaths from peripheral neuritis in Manchester were 11, 17, 18, and 39, respectively. Again, taking together the deaths from the following diseases (in which arsenical poisoning may have played some part) *viz.*, peripheral neuritis, neuritis (other), alcoholism, and cirrhosis of the liver, the figures for these periods are 172, 141, 188, and 253, respectively. In my last letter I briefly described the principal symptoms observed in this remarkable epidemic. The following statistics of 54 observers supplement what I have said. Only 6 recorded the absence of eruptions. Tenderness of the calf on pressure was absent in only 5 observers' experience. Pain, swelling and tenderness of the feet were observed by 34. Paralysis or paresis was noted by 48. Many remarked on the great increase in the number of cases of herpes zoster. Pigmentation of the skin varied from golden yellow patches on the face, chest and feet, to more extensive bronzing and a deep mulatto pigmentation covering the front of the chest and recalling Addison's disease. Edema was of frequent occurrence. Several practitioners drew attention to loss of memory and delusions. Persons of all ages and both sexes suffered. Dr.

Kelynack, Assistant to the Professor of Medicine, Owen's College, Manchester, has described a very interesting case in which an infant at the breast was poisoned by its mother's milk. A woman, aged thirty-two years, drank stout after her confinement. At the end of five weeks she experienced "numbness" of the fingers, "jumping" in the feet, "running and smarting" in the eyes, and became hoarse. At the same time the child began to vomit whenever it suckled. The mother had tearful eyes, marked erythema and keratosis of the feet, and sensory symptoms in the distal parts of the limbs. Walking was very painful. There had never been nausea, vomiting, or diarrhea, and the secretion of milk was plentiful. The infant was puny and much wasted and it snuffed. Its feet were slightly erythematous. The mother was directed to cease taking stout, to stop nursing and give the baby cow's milk and barley-water. Both improved at once and the baby ceased vomiting. An analysis of the mother's milk failed to disclose the presence of arsenic. The clinical features, however, are sufficient to warrant the diagnosis of arsenical poisoning of the infant from the milk. A similar case was observed in another infant whose mother was recovering from arsenical neuritis. The baby had furred tongue, gastro-intestinal catarrh, vomiting and diarrhea. A few days after weaning it was quite well. A case of arsenical poisoning occurred in a little girl of two, the daughter of a publican. She was petted by the customers who were in the habit of giving her "sups" of beer.

The differences between the medical staff and the Board of the National Hospital for the Paralyzed and Epileptic are, I regret to say, no nearer a settlement. At the request of the Lord Chancellor, who is a member of the Board, an eminent lawyer, the Right Honorable Sir Ford North, consented to conduct an inquiry into the allegations of the staff concerning the care, comfort and treatment of the patients. The medical staff has very properly refused to recognize the proposed inquiry for three reasons: First, the tribunal has been constituted by only one of the parties to the difference; second, the scope of its action is limited to domestic condition of the hospital and excludes the subjects of its constitution and management; third, although dealing with questions purely medical, such as the diet, care, treatment and the nursing of patients, it was to be conducted without medical assessors. The staff also complains that, although the resolution of the Board with regard to the proposed inquiry was passed on November 2d, it was not communicated to them until December 6th, when, although they were invited to appear by counsel, it had only four days in which to instruct counsel for the purpose. As I have already informed you, the staff previously refused to take part in any inquiry of a restricted character which did not include the points of difference to which they themselves attached supreme importance. The consequence is that the proposed inquiry has had to be abandoned. Thus this valuable institution is torn by a controversy which must seriously impair its efficiency, if not destroy it altogether.

An additional link between the several portions of the British Empire has just been forged by the General Medical Council. At one time a Pharmacopoeia was issued by each of the Colleges of Physicians of London, Dublin, and Edinburgh, each of which was the legal authority for the corresponding divisions of the United Kingdom. Naturally this caused much inconvenience, for the preparations varied in strength in the different countries and an English druggist was much inconvenienced by the occasional prescription of a Scottish preparation or *vice versa*. Hence, the issue by the General Medical Council of a general Pharmacopoeia applicable to the whole of Great Britain was hailed as a great convenience. This "British Pharmacopoeia" was prepared by a committee containing members from each division of the United Kingdom and incorporated what was best in the local Pharmacopoeias. It received the sanction of an Act of Parliament and every druggist was bound under penalties to sell only what was in accordance with its standards of strength and purity. About every ten years it has been the custom of the Council to issue a new Pharmacopoeia so as to include all new preparations of sufficient importance and reject others which have fallen into desuetude. Now, many medicinal plants and other substances considered to be valuable are in constant use in India and the colonies and comparatively unknown in England. It has been decided that those of sufficient importance should be brought under official recognition so as to insure a proper and uniform standard of activity. The result will be to supersede the British Pharmacopoeia by an "Imperial Pharmacopoeia" embracing the pharmacy of the whole Empire. As a first step in this direction the committee has been engaged, with the assistance of the Indian and Colonial Governments, in procuring from all parts of the Empire the necessary information from medical practitioners, scientific societies, and all other bodies and persons likely to be in a position to afford it. The first result has been the publication of an "Indian and Colonial Addendum" to the British Pharmacopoeia, containing the necessary details with regard to plants or substances which in the country yielding them may be employed as substitutes for those in the British Pharmacopoeia. Thus in India there are several kinds of bland, native vegetable oils which may be used in place of olive oil and there are native plants which may be used to replace others which would be rendered unduly costly by importation. Moreover, an official character is now given to medicines which have been used from time immemorial by the natives and which possess qualities which have stood the test of scientific investigation. The addendum will be subjected to the criticism of the medical authorities in the localities in which it chiefly applies, and will eventually in some amended form be incorporated with the original work. The attention thus devoted to Indian and Colonial plants cannot fail to further the advance of therapeutics in general.

The question whether boric acid is injurious when used as food preservative has been of late

the subject of much discussion and litigation. Among authorities considerable divergence of opinion prevails. A case of considerable importance which allows the use of boric acid has just been decided. A provision dealer was summoned by a food inspector because his butter contained 0.8 per cent. of boracic acid. The medical officer of health for the county of Wilts, in which the case occurred, gave very strong evidence for the prosecution. He said that boric acid was an unnecessary and dangerous addition to food and caused infantile diarrhea and occasionally death. In cross-examination, however, he failed to give any instances. The medical officer of health for Southampton then testified to the entire harmlessness of the preservative in the quantities found in this case and to its great value and increased use in medicine; but he drew a sharp distinction between its use in milk which is consumed in considerable quantities by children and invalids and its use in butter, of which no one would eat enough to experience any effects from the acid. A provision merchant gave evidence as to the necessity of a preservative of this class and gave figures to show the great falling off in the sale of old-fashioned salt butter since preserved butter was introduced.

TRANSACTIONS OF FOREIGN SOCIETIES.

German.

UTERINE INFECTION—MYXEDEMA AND THYROID EXTRACT—ABNORMAL LENGTH OF THE SIGMOID FLEXURE—SPHYLITIC HYDROCEPHALUS—HEMORRHAGE FROM THE CEREBRAL SINUSES—FIXATION OF THE SCAPULA TO THE RIBS AFTER EMPYEMA—THE O'CONNOR ELEVATOR IN SHORTENING OF THE LOWER EXTREMITY—GELATIN AND ANEURISM—RUPTURE OF THE SMALL INTESTINE—ACQUIRED DEXTROCARDIA—RECTAL EXPLORATION AND ITS RELATION TO INCISIONS FOR APPENDICULAR ABSCESS—NEW FORM HEMOGLOBINURIA—RARE SITES OF PRIMARY SPHYLITIC LESIONS.

SCHAEFFER, at the Berliner med. Gesellschaft, November 7, 1900, discussed infections proceeding outward from the uterus, which was the subject of C. Abel's paper at the preceding meeting. His points were in brief that iodoform gauze is an excellent means of dilatation; vaporization is of little value because the experiments of Flatau show that the temperature at which the steam reaches the uterus is too low to be of value; lysol douches are equally of little efficacy; extirpation applies well in selected cases but its indications are not yet fully determined; cold packs for the reduction of temperature are very useful and comforting as they are usually followed by heavy perspiration.

GÖTTSCHALK said that true septic and merely sapremic endometritis must be differentiated. The latter yields at once to clearing out of the contents of the womb. Intra-uterine irrigations of a one-per-cent. solution of soda are more satisfactory than lysol douches. Dilatation with instruments causes hyperemia which is to be avoided. Local use of alcohol fails just as do other disinfecting means. Removal of the womb has not been satis-

factory in his practice. The most important two things are sustenance with good food and proper stimulation preferably with some form of alcohol. Sodium salicylate on account of its causing leucocytosis is valuable and quinine did wonderful service in one case of pyemia. Most of the so-called septic abortions are only sapremias pure and simple.

H. NEUMANN said that as in myxedema in the adult so in sporadic cretinism with or without idiocy thyroid extract works wonders. There occur decrease of the unhealthy fat body, increase in growth, rapid development of the teeth and improvement in the bodily functions. Absolute cure he has never seen, but the earlier the treatment is begun the more rapid and satisfactory are the results. Such cures may often be lost by the fact that the disease is often confused with rachitis, which is really often associated with it. The disease really occurs rather frequently.

STOLZNER, at the meeting of November 14th, said that in the last two and one half years at the Heubner Polyclinic he had treated five cases of infantile myxedema with favorable outcome. One was apparently completely cured. The others were much improved but it was a question how far the mental development would continue. Too much emphasis cannot be laid on a distinction between cretinism and rachitis.

EWALD reported three cases in the polyclinic of the Augusta Hospital and presented one. As in the treatment of adults so of children the thyroid extract must be continuously given and in ever increasing dose. He has one adult who is now taking very large doses. The system appears to become accustomed to the medication but unfortunately not to its occasional deleterious effects. To counteract such he now uses arsenic.

DETERT, at the Verein für innere Medicin in Berlin, November 5, 1900, reported the case of a two-and-one-half-year-old child with obstinate occlusion and partial displacement of the sigmoid colon. The treatment was by high intestinal injections. After the sound had passed a certain distance up it encountered an obstruction diagnosed as the lower end of the upper segment of the bowel, situated about thirty centimeters proximal to the anus. When the sound passed this considerable flatus was voided. The prognosis appeared uncertain though the treatment would be continued.

NEUMANN stated that in literature there is only one full cure of hydrocephalus mentioned—Heller. This was probably syphilitic like his own case reported. Three weeks before coming under his care the three-year-old baby had begun to show distinct signs of hydrocephalus, spreading of the fontanelles and sutures, typical hydrocephalic appearance, depression of the mental faculties, wrinkling of the skin, and enlargement of both the liver and spleen. Iodide of potash 0.25 gms. daily to a total of 75.0 gms. (4-1100 grains) cured rapidly and very fully. Even an early affection of the eyes (clouding of the retina, obscuring of the papilla and scattered spots) also disappeared.

BERTLESMANN, at the Aerztlicher Verein in

Hamburg, November 13, 1900, brought forward a woman cured of intracranial hemorrhage from the sinuses. She had been knocked down by wagon and fell against a sharp stone upon the occiput. At first she was unconscious and later mentally clear. This was followed by delayed signs of cerebral damage. These were: Stupor, pupillary inequalities, numerous epileptiform seizures, vomiting, slow irregular pulse. Operation was at once determined upon because edema of the lungs was imminent and although the interval of consciousness made it difficult to be certain of the site of the damage, secondary hemorrhage was the final diagnosis. There were no signs of bleeding from the middle meningeal artery, therefore it was decided to explore the site of external injury. Here a fissure was found crossing the sagittal suture at an acute angle. Upon removing a large bone-flap, free evacuation of blood occurred followed by better pulse-conditions. Exploration of the lower corner of the wound caused violent flow of blood indicating wound of a sinus, which had to be packed at once. Noteworthy in the after-course of the case are the following facts: A two-day active jactitation and stupor followed with also a slight attack of spasm accompanying; on the twelfth day after the operation consciousness complete for the first time; absence of patellar reflex from the fifth to the ninth day; removal with no bleeding of the tamponnade on the twenty-first day; slight recurrence of stupor directly thereafter with acute moderate dilatation of the heart and various slight cerebral excitement of very temporary duration, and evanescent right ocular rectus internus paresis with double vision. At the present time the patient is in good condition, free from either psychic or somatic lesions and able to earn her own living.

SICK introduced before the meeting a patient who had been under treatment for one year for tuberculous empyema which had a history of three years' standing. The ribs had been resected and various thoracoplasty procedures followed until cure resulted. As an after-effect there had occurred ankylosis between the ribs and the scapula which caused loss of function of the arm. In order to restore this the lower half of the scapula had to be resected. The use of the arm had returned to the degree of permitting him to earn his living, although there was considerable deformity.

WIETING had a patient with one lower extremity twenty centimeters shorter than its fellow, for which he had successfully applied the O'Connor elevator, designed essentially to improve the cosmetics of the case by doing away with the heavy clumsy thick sole and make the foot of the affected resemble that of the normal side. The body-weight is not received on the horizontally placed but a strongly oblique sole, so that the foot is brought somewhat into the equine position, but without making the patient walk on his toes. Through obliquely placed blocks the sole of the foot really takes the weight upon the slanting base of the boot. The apparatus really consists of two boots, outer of the usual appearance, and

inner consisting of this aluminium splint with leather shoe-like covering to fasten the foot to it. The whole device weighs about four pounds.

RUMPF took up the subject of injections of gelatin in the treatment of aneurism with particular reference to the experiments of M. Schmidt and the recommendations of Lancereau to use a two-per-cent. solution and one hundred cubic centimeters at a time. He had had his patient under observation for one and one-half years, an aged inmate of a hospital and retreat. In January, 1900, there developed a tender place over the third rib which slowly became an erosion through an aneurismal sac with all the signs of pulsation, etc., until finally a hen's-egg sized tumor was present. The injection above described was resorted to with the result that in a short time another was necessary. After that the tumor disappeared and apparently cure was brought about. After this persisted a few months slow relapse appeared till now the conditions were just what they had been in January. The treatment was to be repeated and the results of it would be shown to the society at a later period.

RINGEL reported a case of rupture of the small intestine in a gardener with very marked kyphosis. He fell from a tree upon his abdomen and showed, on admission to the hospital, small thready pulse, fever, dulness in the flanks and signs of beginning peritonitis. Immediate laparotomy was done. The jejunum was found ruptured high-up for three inches and sewn. The abdominal cavity was filled with intestinal contents and the peritoneum was slightly involved. Its toilette was carefully attended to and the parieties were closed *without drain*. An almost fever-free course followed, interrupted only by a small mural abscess.

LOHSSE, at the Med. Gesellschaft zu Magdeburg, October 11, 1900, described the clinical picture of a case of dextrocardia acquired through collapse of the right lung, through phthisis of that side progressing since 1893, at which time the heart was still situated in its normal position. The following are the details: Absence of heart dulness and in the skiagram of the heart-shadow on the left side; pronounced emphysema of the left lung carrying its right limits over to the right margin of the sternum; great enlargement of the left chest; pulsation in the fourth interspace near the anterior axillary line and in the fifth interspace near the parasternal line; cardiac dulness beginning at the lower border of the fourth rib near the anterior axillary line, following this rib inward and in the parasternal line turning down toward the midline; heart sounds at their acme over this same area; infiltration of the upper part and cirrhosis of the lower part of the right lung; great pleural thickening evidenced by marked dulness and feebleness of breath and voice sound; sinking-in of the right chest until five centimeters smaller than the left; no subjective circulatory symptoms; right radial pulse the stronger; tubercle bacilli in the sputum. This dextrocardia is almost certainly acquired, because seven years ago when his lung trouble began, so far as can

be ascertained, the heart was in its correct site. Moreover, through the past year the cirrhosis of the right lung has influenced it. The present position of the heart was only partially indicated by the radiograph, and was still further to be examined and established on cadavers by Garnier and Bard, who found the heart as a whole may be pushed to the right, the base and apex maintaining a normal relation. Still further in evidence is the fact that the attachment of the pericardium to the diaphragm is such that experimentally the heart can not be twisted on its base so as to displace the apex to the right. Again the physical signs in this case disprove this because the base was evidently up and to the right, while the apex remained down and to the left, each with widely separated and distinct pulsation corresponding to the length of the heart. The difference in the radial pulses probably bespoke a kinking in the branches of the aorta. In literature such cases are rare, but none is of so large a degree of displacement.

LANGEMAK, at the Rostocker Aerzteverein, September 8, 1900, brought out the point that there is still too little unanimity between the internes and the surgeons in the treatment of appendicitis and that more and more surgeons are joining the school of immediate operators. But in one point there is no difference of opinion, namely, that palpable purulent exudates about the appendix always deserve surgical treatment. The widely different positions of the appendix and hence of the exudate must determine to a degree the avenues of approach. For years it has been known that the relation of the appendix to the true pelvis renders its symptoms often like those of disease of the adnexa and hence the vagina is a convenient route for evacuating abscesses so situated. In males and in female infants such abscesses will be near the rectum. In the clinic at Rostock, Professor Garré has operated on a number of patients in this way and the speaker praised this avenue as easy and direct in selected cases. Hence is recommended exploration of the rectum in all cases of appendicitis with a view to following that as a route to the abscess.

L. MICHAELIS stated the following history: A woman had had a ruptured tubal pregnancy, resulting in a small retro-uterine hematocoele and blood free in the abdominal cavity, then collapse. The hemoglobin was at this time twenty-five per cent. and the blood contained single small kernel-like bodies. Saline infusion was resorted to, followed by improvement in a few days. Four weeks later the hemoglobin was seventy per cent. On the day after admission the urine was blood-red, with a few granular casts, a little albumin, some blood pigment but no blood cells. The next day the albumin and hemoglobin disappeared from the urine. On the twenty-fifth day sudden rise of temperature to 38.6° C. with chilliness and renewed attack of the hemoglobinuria even more severe than the former. Three days later normal urine again and after eighteen days of further observation was still normal. This interesting case

the speaker sought to explain with the help of Bordet's hemolysine of the hypothesis of Ehrlisch-Morgenroth and held that it should be regarded as the first example of autolysine action.

STADELMANN in the discussion said that for the production of hemoglobinuria some blood-poison is necessary, as exemplified by pyemia. If the theory of Michaelis were correct, this condition would be oftener encountered.

HAHN, at the Aerztlicher Verein in Hamburg, October 30, 1900, reported a child three years old with a primary syphilitic sore on the upper eye-lid. The submandibular glands were affected and a macular secondary exanthem established the diagnosis. In the same family, a second child had the initial lesion on the tip of the nose and a third on the wing of the nose. An adult in the household with florid secondary lesions was the source of all these infections.

SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE—SECTION ON ORTHOPEDIC SURGERY.

Stated Meeting, Held October 19, 1900.

A. B. JUDSON, M.D., Chairman.

Diagnosis of Pott's Disease.—Dr. H. Gibney read this paper, which was illustrated by the exhibition of photographs and the presentation of patients.

Case I. Cervical Pott's Disease.—Girl eight years of age. Marked deformity from disease of long duration of several of the cervical vertebrae with scars of abscesses below the site of the disease. Treatment had been discontinued in the summer of 1900. The child had worn a head support combined at first with a plaster-of-Paris jacket, and afterward with Knight's spinal brace. Pain near the seat of the disease, which is often absent in the other regions, is a common symptom in this region, with a sensitive area at the side of the neck, severe pain with voluntary motion of the head and neck and apparent torticollis yielding easily to traction applied in such a manner as to hold the head in its normal position. Before treatment, relief was sought by a supporting hand held under the chin. Abscesses are not an uncommon incident of cervical disease, detected by an examination of the posterior wall of the pharynx or burrowing under the superficial muscles of the neck.

Case II. Cervical and Dorsal.—Boy five years of age, affected for two and a half years with disease extending from the middle cervical to the middle dorsal region. Two abscesses had opened spontaneously at the sides of the neck under the sternocleidomastoid muscle. He had worn a plaster-of-Paris jacket and a jury-mast for eighteen months. A grunting noise with each expiration is almost characteristic of caries of the dorsal region and an early diagnosis is greatly assisted by the occurrence of gastralgia, the appearance of a

careful gait and a peculiar, apprehensive attitude, expressive of timidity and insecurity, and an instinctive desire to avoid disturbance of the diseased vertebrae. The first sign of a kyphos is seen in a slight angle breaking the long natural curve of the spinous processes observed in profile as the patient lies prone.

Case III. Tenth Dorsal. First Stage.—Girl eight years of age. Under observation since May 5, 1900, and regarded for a time as a case of lateral curvature with a hypersensitive, almost neuralgic, condition of the spine. Very recently a suspicious point had been detected at the tenth dorsal and treatment would now be by Knight's support.

Dr. T. H. Myers said that lateral curvature often attended incipient Pott's disease and obscured the nature of the more serious affection, as had occurred in the present instance. He thought that these doubtful cases should be considered as caries of the vertebrae until a positive diagnosis could be made.

Dr. H. S. Stokes said that in obscure cases of early Pott's disease the plaster-of-Paris jacket was valuable as a means of verifying the diagnosis. In cases in which there was at first no apparent deformity, if the jacket were applied and left on for a time, then removed, the kyphosis, if present, would be seen at once. This effect was seen too soon to be due to further progress of the disease, nor could it be said that the jacket had caused the kyphosis. In a doubtful case, showing no deformity, he would apply the jacket as a diagnostic measure.

Dr. A. B. Judson said that similarly the tumor of white swelling of the knee became more obvious soon after the beginning of mechanical treatment, probably from pressure and restraint applied to the soft parts.

Dr. Gibney resumed his presentation of patients as follows:

Case IV. Dorsolumbar.—Girl, two and one-half years old, affected with disease of the dorsolumbar region of nine months' duration. No abscesses. The spine had the marked rigidity which attended disease in this region and marked gasteralgia had been a part of the history of the case. A plaster-of-Paris jacket had been applied at first, but lately a recession of the deformity had been observed to follow the strict application of a Bradford frame.

Case V. Eleventh Dorsal. Third Lumbar.—Girl thirteen years old, who had recently come from Russia with a very marked kyphos. But little had been learned of the history and treatment. Sinuses were discharging at points where abscesses had opened spontaneously. The gait and attitude were very characteristic of disease in this region. A Knight support had been applied and as the child's general condition was fair, the prognosis was good.

Dr. Myers said that the characteristic attitudes of Pott's disease, although early and important signs, were also seen in osteitis of a syphilitic or malignant origin. It was, therefore, important to consider the personal and family history, the age,

the location of the disease and the mode of onset as well as the pain and tenderness. The fourth patient presented had been free from pain in the abdomen and legs. Pain in the terminations of the nerves was not so early or so prominent a symptom in the lumbar as in the dorsal region, while local tenderness was more apt to be recognized in the cervical than in the other spinal regions. In the cervical region the vertebral articulations might become infected by organisms gaining access from the pharynx after measles or scarlet fever with resulting muscular spasms and malpositions of the head simulating those of Pott's disease and it might be a long time before it could be decided that a postpharyngeal abscess had its origin in vertebral caries. A long time might also elapse before it could be known that a traumatic osteitis in the cervical or lumbar region had become tuberculous. There were absolutely no pathognomonic symptoms.

Dr. J. P. Fiske said that he had not as yet seen a case of traumatic spine go on to tuberculous caries.

Dr. Judson said that Pott's disease presented some unexpected features, such as the occurrence of pain in the front of the trunk while the disease was in the back. Some patients also with serious and purulent destruction of bone maintained the appearance of robust health. This affection, justly compared with fracture of a central and most important part of the skeleton, was as a rule so free from local pain and disability that when these symptoms were persistent and exaggerated Pott's disease gave way to malignant disease of the vertebrae as a probable diagnosis.

Dr. Myers said that the diagnosis of the latter affection would be assisted by consulting the following clinical features: Rapid emaciation and loss of strength, every motion exquisitely painful, pain constant but motor paralysis less constant, marked muscular rigidity, kyphosis absent or late in its appearance, occurrence at any age.

Dr. Fiske said that as they all had deformity the presentation of these patients failed to throw light on the most important question, that of making an early diagnosis. Diagnosis before deformity was an extremely difficult thing, and proportionately important and desirable. Suspicious spinal symptoms might be produced by rheumatism, by neurotic reflexes, myositis following a blow or by some other and more obscure muscular lesion. He had seen cases in which circumcision had dissipated spinal symptoms which had been hard to interpret. Muscular spasm or spinal rigidity could not alone support a diagnosis of tuberculosis of the spine.

Dr. C. R. L. Putnam recalled the history of a case which he had observed in a foreign hospital. A man, forty-five years of age, totally paraplegic, was thought to have disease of the first and second lumbar vertebrae with a tuberculous abscess pressing on the spinal cord. The removal of two laminae revealed the presence of an echinococcus cyst behind the thcca. The result was unfavorable.

Dr. Myers had seen a tumor of the lower cervical cord produce, not only symptoms of pressure on the cord, but also the local pain and muscular rigidity which usually attend vertebral disease.

Dr. F. A. Goodwin of Susquehanna, Pa., said that railway brakemen, from their custom of jumping off and on trains in motion, frequently received spinal injuries accompanied by rigidity, pain on pressure and other symptoms of true Pott's disease. Perfect rest for a long time, however, almost always cleared up the diagnosis. It had been his misfortune to see a number of patients in whom the diagnosis of Pott's disease had been inexcusably postponed by eminent authorities. He instanced the history of a little boy who had been treated for asthma and other affections without an examination for kyphosis which had existed to a marked degree for a long time during which grunting expiration, pain, inability to stoop and rigidity of the spine had been obvious features of the case. On the other hand, he had made a diagnosis of Pott's disease in a little girl who had a board-like rigidity of the spine. She could not stoop to pick up a coin from the floor without putting a hand on the knee for support. Her recovery without treatment was explicable by the supposition that there had been synovitis of the costovertebral and costotransverse articulations. He thought that a diagnosis before the appearance of deformity was exceptional and recognized the inherent difficulties of the situation.

Dr. L. W. Ely referred to the opinion which prevailed among general practitioners that Pott's disease in the dorsal and lumbar regions was attended by sensitiveness to pressure on the spinous processes. Although this supposition was not unreasonable, in view of the nature of the lesion, the fact was that this symptom was of very rare occurrence. Running the fingers down the spinous processes in a doubtful case was of almost no value in making a diagnosis.

Dr. G. R. Elliott said that in a rapid carious process we had the full quota of symptoms clearly defined while a slow morbid action gave but few and obscure indications. The X-ray had been a disappointment in this field. It had failed to reveal a deposit before the appearance of deformity. What was desired was an early diagnosis, a diagnosis before deformity which, of itself, made the diagnosis without the assistance of symptoms or any other signs. A most important early symptom was abdominal pain. How often are we told of the postponement of a spinal examination in favor of treatment for intestinal disturbance until an early diagnosis was impossible. A child should be examined with all the clothing removed. In no other way could the obscure signs be recognized. The enlarged abdomen was another important early sign. The contraction of a psoas muscle, exposing one to the risk of a faulty diagnosis of hip disease, might be the earliest sign of Pott's disease. He recalled the case of a child who was said to have cervical caries of two months' duration following scarlet fever with

rheumatism. There was painful spasm of the muscles of the neck, the head resting on the shoulder and a hand supporting the chin. The symptoms all disappeared without fixation after treatment by simple suspension. On the other hand, a patient with supposed rheumatism of the spine, whose symptoms included pain in the back, stiffness and misunderstood reflex spasm, was bathed, rubbed and shaken up for three months and, after vigorous antirheumatic treatment had lasted for a year, the appearance of kyphosis determined the diagnosis.



Equilibrium disturbed by kyphosis of Pott's disease and restored by lordosis.

Dr. Gibney said that photographs clearly presented the attitudes, but failed to display the characteristic movements and deportment of the patient affected with Pott's disease. There was in his collection, however, one which graphically copied (see Fig. 1) the overerect attitude which was assumed by the patient's entire figure and threw light on the mechanism of the production of the lordosis which appeared as a compensating curve below the kyphos.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Held December 6, 1900.

The President, William H. Thomson, M. D., in the Chair.

THE anniversary discourse was delivered by Dr. Robert Abbé, the subject being "The Problem of Appendicitis from the Medical and Surgical Side."

Changes in Surgical Interest.—The subject of most interest to surgeons at the present moment is appendicitis. As an ordinary surgeon in a reasonably busy practice may have 100 operations a year for appendicitis, this interest is evidently jus-

tified by the conditions. Other subjects of surgical interest come and go, but this continues because of its pathological significance. Twenty-five years ago the questions of interest to the surgeon were very different from those which occupy him now. One of the most important subjects at that time was operation for strangulated hernia. This has lost a great deal of its importance because operations for the radical cure of hernia have greatly lessened the number of strangulations which take place. Another important subject at that time for the surgeon was pyemic conditions of joints. These came as the result of infection, and in this day when asepsis is the rule such cases are very rare. Kidney abscess was another subject of interest a quarter of a century ago that has lost most of its importance at the present time, because vesical infections are now treated more carefully and more rationally and ascending infections of the kidney do not take place. The surgery even of tuberculous bone affections has diminished in importance, because of the better sanitary surroundings of the population most liable to these conditions. There is no doubt that no profession is doing so much to end its own usefulness as the medical one.

Phases of Appendicitis.—Appendicitis constantly presents new problems. It is not a new disease. Some twenty-five years ago, when the word pneumonia first came into vogue to represent a disease distinctive from a number of pulmonary conditions that had formerly been grouped together, a similar state of affairs occurred with regard to this disease. There seemed to be many more deaths from pneumonia than formerly and apparently the disease was epidemic. Just as many deaths occurred from appendicitis before the invention of its name as since. Two diseases particularly received the credit for the fatal affections which are now known to have been due to appendicitis; these were inflammation of the bowels and peritonitis. Inflammation of the bowels formerly occupied a prominent place in hospital mortality statistics. Now it has disappeared.

Specimens of Appendices.—Dr. Abbé then said that he had not intended to review the statistics of appendicitis, nor to suggest any modification of present operative methods, nor had he any pet theory to air in the matter, nor did he even wish to dogmatize on the subject. The main object of his paper was the discussion of a set of specimens of diseased appendices which had been removed, carefully preserved in alcohol, and then studied. In order to preserve these specimens as far as possible in the state in which they were when removed, they were first injected with alcohol and then placed in a vessel containing alcohol. After hardening they were split in order to show the character of the interior of the appendix and especially to exhibit the kind and number of strictures that existed in the different cases. Nearly always behind the strictures were found pockets of infected material, sometimes only mucopurulent in character, but sometimes composed of pure pus. Many of these cases were associated with symptoms of

chronic dyspepsia, which show the reflex affect on the gastro-intestinal tract of the presence of the pus as well as the effect of infective material in the absorbents of the digestive system.

Concretions.—In many cases concretions were found behind the strictures. Whenever concretions were found they always occurred on the distal side of the narrowing of the lumen of the appendix. These concretions very rarely contain food particles, nor are they formed around some foreign body as a nucleus, although this has often been said to be their usual mode of origin. The concretions are composed of desquamated epithelium from the mucous membrane of the inflamed appendix and of bacteria. Their formation shows that the pathological condition in the appendix has existed for a long time. It is an entirely false idea to think that these concretions are formed in the cecum and are dropped from there into the appendix. It is only when the stricture of the appendix is so tight that the desquamated epithelium finds no mode of egress that the concretions form.

Foreign Bodies.—Foreign bodies are found very rarely in the appendix. Some of the specimens presented show very clearly the appearances that led to the theory that the seeds of certain fruits sometimes find their way into the appendix and became the source of appendicitis. The concretions often imitate such seeds in their form and so are mistaken for them on casual observation. Only rarely is a kinking of the appendix the cause of appendicitis.

Etiology of Appendiceal Strictures.—Structures of the appendix are due to two causes, ulcers and severe catarrhal inflammation. Experience with strictures in other parts of the digestive canal, especially the esophagus and the rectum, makes it clear that such strictures take many years to develop sufficient contractility to narrow the lumen. There is no doubt that the beginning of a stricture in the appendix may go back twenty-five years.

Undoubtedly a severe intestinal disease in children, such as infantile colitis, is a prominent and frequent cause of ulcerous conditions which invade the appendix and leave a tendency to the formation of connective tissue which later becomes a stricture. Influenza when it attacks the intestinal canal is probably also a not infrequent cause. The first recognized attack of appendicitis is really only a terminal stage of an affection which has existed for many years.

Development of Appendicitis.—When a stricture exists in the appendix any disturbance of the circulation of the intestine may easily lead to a swelling of the mucous membrane with occlusion of the canal. If the bacteria behind the stricture are of virulent character, this occlusion may soon become permanent by inflammatory adhesions and, then, as there is no free exit for the infective material, a virulent abscess results. Sometimes the rapid growth of bacteria within the shut-up appendix and the consequent manufacture of purulent material increases the pressure within the

appendiceal pouch and forces open once more the occluded lumen of the appendix.

These are the cases which improve under medical treatment and seem to get better. Occasionally Nature provides an exit for the pus by making an accessory opening through some part of the intestinal canal. This constitutes Nature's method of curing the disease. The cure is rare, however, and is usually imperfect. The ordinary cures under medical treatment are in no sense radical. Recurrences of the appendicitis can be looked for at any time and the stricture of the appendix, of course, continues to exist.

Multiple Appendiceal Strictures.—As many as seven or eight strictures of the appendix, all of them fairly tight, have been found in one appendix. These usually represent successive attacks of appendicitis, occurring at rather long intervals. The appendiceal inflammation leads to the formation of connective tissue and as this is contractile in character, strictures result. Very often when the history of the case is carefully traced and the condition of the appendix, the number of its strictures and their character, carefully studied, the two sources of information will be found to complete and explain one another. The appendiceal history is written in the tissues of the appendix itself.

Special Cases.—One of the appendices removed by Dr. Abbé and presented among the specimens was markedly gangrenous. It came from a case in which the patient had had a preceding mild, but typical, attack of appendicitis twenty-five years before the one in which the acute symptoms required the removal of the appendix. The stricture which had formed in this case had behind it a concretion and it was this, doubtless, that helped to the acute exacerbation which ended in gangrene. The concretion in an appendix may act as a ball-valve, sometimes preventing the exit of material within the appendix and sometimes permitting it. This gives rise to slight symptoms of appendicitis. The perforation of the appendix not infrequently occurs where the concretion is pressing upon the walls of the appendix. Pressure leads to thinning of the walls and finally to complete perforation.

Appendicitis and Gout.—It has been said that appendicitis occurs especially in gouty subjects or, at least, that in certain cases the appendicitis seems to be of gouty origin. This explanation of the etiology of the disease is apparently due to the fact that in certain cases joint symptoms have been noted in connection with recurring appendicitis. It is probable in most of these cases, however, that the reason for the joint symptoms is really a mild form of pyemia induced by the constant presence of the septic focus in the diseased appendix. Mechanical factors are now held to be the principal etiological elements.

Latent Appendicitis.—Certain cases of appendicitis run a most insidious course. That is, the disease exists for a long time, yet gives no symptoms that call attention to its presence. It seems better to call such cases latent, rather than chronic appendicitis. When stricture exists it is not hard

to explain such cases. A bicycle ride may cause intestinal congestion; or the intestinal disturbance incident to the irritation of some unsuitable food, green apples, or the like, may produce the same effect. Menstrual disturbances are also factors in the production of a congestion which causes appendicitis. Each attack that occurs makes the stricture tighter. Relief afforded by any means other than a radical surgical operation is only a lull in the general pathological process which is usually progressive.

Anomalous Cases.—At times there is found within the lumen of an appendix after operation an accumulation of sterile yellow debris. At times, too, the virulence of the infective material within the appendix proves to be not so fatal as might be anticipated from its appearance. Every surgeon has had cases in which contrary to expectation the patient has recovered. At times apparently moribund patients recover even after operation has been refused because there seems no hope. This recovery is usually due to the fact that Nature provides an issue for the pus by some method of spontaneous evacuation. In general, however, a case of appendicitis can never be operated upon more safely than when it is first recognized.

Recuperative Power.—The study of the changes that take place in an appendix when natural forces are working for its removal, while Nature is trying at the same time to protect the individual from harm, are most interesting. In the formation of adhesions and of newly-formed connective tissue generally, cells fall into line for reparative purposes with a unanimity and a helpful cooperation that seem little short of intentional. More important processes within the body share this same tendency to accommodate themselves to changed circumstances in pathological conditions. The reversal of peristalsis, which takes place whenever occlusion of the intestines occurs, is a striking example of this conservative accommodation of means to other ends than those for which they were originally intended. For forty years or more, perhaps, peristalsis has always acted downward and now, in the hope of preventing fatal accumulation of material, the process is reversed. The mechanism for reversal is as intricate and requires as much intention as does, for instance, the reversal of a steam engine.

Cell Instincts.—There is no doubt that to man is arrogated too much superiority to the individual cell. It is the custom to say that animals have instincts and to explain many of the things which seemingly require reasoning powers to the presence of this faculty. It is a method of explaining animal intelligence without a resort to mental qualities. Cells undoubtedly possess instincts that are not unlike those of the animal and that are at least utterly inexplicable so far as we have been able to study them. The case of phagocytes, for instance, who fall on the battlefield of the inflammatory disturbance, unselfish martyrs to the cause of protecting other cells and through them the higher organism to which they all belong, are the best example of this. Further study will undoubt-

edly reveal many things that are now mysteries in these cell processes and give higher ideas of the wonderful work they do.

Diagnosis of Appendicitis.—Despite all study of the disease the diagnosis of appendicitis is not yet an absolutely soluble problem. There are cases in which renal calculus, for instance, may simulate every symptom of an appendicitis and in which the only hope for differential diagnosis is the finding of a few blood-cells in the urine after careful microscopic examination. Even so ordinary a disease as typhoid fever may, for some days simulate appendicitis so closely as to make diagnosis practically impossible. In this case the presence of leucocytosis is important. In typhoid fever, if there is no ulcerative process, as there usually is not at the beginning, there will be no leucocytosis. The number of white blood-cells will soon be recognized as an important diagnostic point in other regards. If marked leucocytosis is present in appendicitis a favorable prognosis exists, however serious the symptoms may be.

Extra-Appendiceal Symptoms.—The presence of a collection of purulent material in and around the appendix often gives rise to symptoms in parts of the body far distant from the appendix. Arthritic symptoms due to the presence of a subseptic state, a mild pyemia, have already been spoken of and are sometimes a very interesting feature of certain cases. The mimicry of other intestinal diseases is quite common. Ordinary colic is usually appendicitis. Colicky symptoms in other parts of the intestinal canal may owe their origin to the reflex irritation of the pathological condition of the appendix, or to the presence of irritating material in the vascular system of the intestine. A very curious set of symptoms are those which in appendix cases seem to point to the existence of an ordinary indigestion, capricious appetite and recurrent pains after eating being prominent symptoms.

Significance of Appendicitis.—It is now much better realized than formerly. Life insurance companies, for instance, now refuse to take risks on the lives of patients for one year after a first attack of appendicitis, and will not insure until the appendix is removed if there has been more than one attack. Truth always comes letter by letter in medicine, but the subject of appendicitis has been lifted out of the opprobrium of the past. The improvement has come not alone in knowledge of the pathology and etiology of the disease, but also in its therapeutics and in the indications for treatment furnished by special symptoms. The old reproach, "And have some doctor shake his learned head and give the ill he cannot cure a name," no longer comes home to us, in regard to appendicitis, as it did in the past.

Medical Board of City Hospital.—The following officers were elected at the annual meeting: President, Dr. Edward S. Peck; Vice-President, Dr. D. Hunter McAlpin, Jr.; Secretary, Dr. Charles L. Gibson; Chairman of the Committee of Inspection, Dr. Charles C. Ransom.

BOOK REVIEWS.

DUANE'S MEDICAL DICTIONARY. A Dictionary of Medicine and the Allied Sciences. By ALEXANDER DUANE, M.D., Assistant Surgeon to the New York Ophthalmic and Aural Institute. Lea Brothers & Co., Philadelphia and New York.

The man who has occasion to examine medical students, or, more especially, advanced practitioners who apply for State licenses, is impressed always with the almost universal lack of accuracy both of statement and of use of words. Every effort that tends to direct the attention of medical men to accuracy of definition and makes it easy for them to acquire it is to be cordially welcomed. Duane's dictionary fulfills this to a marked degree. In this last edition the work has been enlarged to include pharmacy, dentistry, and veterinary science. Under the principal diseases a concise sketch is given of causation, symptoms and treatment; under the more important organs an outline of their structure and functions, and under each drug an account of its action, uses, preparation and dosage. A practical test, by daily use during the past three months, demonstrates that the work is reliable, complete, convenient and in every way satisfactory.

CANCER OF THE UTERUS, ITS PATHOLOGY, SYMPTOMATOLOGY, DIAGNOSIS AND TREATMENT. By THOMAS STEPHEN CULLEN, M.D., Associate Professor of Gynecology in the Johns Hopkins University. Illustrated by Max Brödel and Hermann Becker. New York: D. Appleton & Co., 1900.

The steady and rapid increase of cancer is arousing renewed interest in the study of its nature, its methods of extension, and its etiology. The contribution that Dr. Cullen has made to the science and literature of this subject forms the most complete and satisfactory work in this field that has ever been presented to the medical profession. Dr. Cullen has no new theory to expound regarding the primary cause of the disease, but he presents in the book before us all of value that is known upon the subject. In addition to these is given a most complete and careful record of his clinical and pathological study of all the cases of cancer of the uterus or any disease that might possibly be confused with cancer that have come under observation at the Johns Hopkins Hospital during the last seven years. The book is of great value to the pathologist, to the family physician and to the surgeon. The author bases his work upon the hypothesis, dictum or fact, that the microscope is the final arbiter in making a differential diagnosis, and specific directions are given for the preparation and the examination of scrapings from the endometrium, and the securing and treating of specimens of tissue from all infected areas. The chapters on the early recognition of cancer are so distinct and clear that a wayfaring man, though a general practitioner,

should not err in giving, or directing to, prompt and efficient relief. The descriptions of the latest methods of surgical treatment, the discussion of methods of transmission (implantation) and the judicial consideration of prognosis are of value to the surgeon. The names of Max Brödel and Hermann Becker are sufficient guarantee of the excellence of the illustrations.

PRACTICAL MANUAL OF DISEASES OF WOMEN AND UTERINE THERAPEUTICS FOR STUDENTS AND PRACTITIONERS. By H. MACNAUGHTON-JONES, M.D., M.Ch., Master of Obstetrics, Royal University of Ireland; President of the British Gynecological Society, etc. Eighth Edition. New York: William Wood & Company.

THIS well-known manual appears in its eighth edition pregnant with new matter. The author makes extensive notes on the management of the various operations, omitting none of the details the knowledge of which is ordinarily presupposed, but which the young practitioner or student has not yet learned by practical experience. At the same time the text is elucidated by numerous excellent original illustrations, which are a prominent feature of the work. Tables of etiology and symptoms adapt the book to the student's demands, but it is to be regretted that in treatment many methods are outlined without any indication of the author's preferences. Chapters are devoted to asepsis and antisepsis, surgical instruments, sutures, arrangement of operating room, etc., which belong rather to works on general surgery. In the medicinal treatment we are surprised to see mentioned and recommended not a few proprietary articles of presumably unknown composition. Chapters on the rectum and urinary organs add to the value of the book and make it as complete as one could find in such compact form.

THE LAW IN ITS RELATION TO PHYSICIANS. By ARTHUR N. TAYLOR, LL.B., of the New York Bar. New York: D. Appleton & Company.

THE object of this book is to place within the reach of the physician a systematic treatment of those questions of law which affect his ordinary professional work, and to explain the general principles upon which his rights are based. It is not a treatise on medical jurisprudence, but rather a series of talks on the responsibilities of physicians, their control over patient, their right to compensation, and their duties under the law as medical men. Some of the questions discussed are the liability of master for attendance upon servant, of one person who calls a physician to attend another person, of physician in cases receiving treatment free, and in operations of necessity. Cases and court discussions are introduced in brief to illustrate in a practical way the exact meaning of certain laws. Usually the general nature of the query precludes consideration as to individual State laws, but where these laws differ materially they are compared and commented upon. The style smacks of the legal, but it is agreeable, clear, and not technical. An extensive index adds to its value.

A TREATISE OF DISEASES OF THE NOSE AND THROAT. By ERNEST L. SHURLY, M.D., Vice-President and Professor of Laryngology and Clinical Medicine, Detroit College of Medicine, etc., etc. D. Appleton & Company, New York.

AIMING at thoroughness and comprehensiveness in his treatment of each subject the author has treated diphtheria and tuberculosis much as they would need to be treated in a work on general medicine, simply because they had a claim to consideration as nose and throat affections. This thoroughness pervades the book. It skillfully summarizes the history. It arrays the *pros* and *cons* in etiology and pathology, giving all views a fair chance to be heard and prefers to leave decisions to the readers, though occasionally it ventures a "not proven," as in the case of identity of causative agent in tuberculosis and lupus. It is with regret we notice that authors are credited with views without reference to the literature whence the views are obtained. We fully appreciate what a huge bibliography would have been needed for this book, since the author seems to have consulted everything written on the subjects treated. Yet, a work of this kind in our times is signally deficient that omits such a bibliography, since readers often wish to consult the originals, read them *in extenso* and along with their content. Otherwise, we must speak commendably of this book, written in good language, racy, thoughtfully and with full appreciation of the importance and setting of the various subjects. It has the true spirit of scientific investigation in all questions of research. It presents many methods and hints at the best. The author's grasp of general medicine is evident from the point of view from which he considers his specialties. This vouches for the helpfulness of the book to the general practitioner. He might profitably have said more about immunization when he said so much that was valuable about diphtheria; and he might profitably have said more about the selective influence of *la grippe* for the nervous elements when he said so well so much else of value about it. The book demonstrates its value to us by the forceful and virile thoughts it gives us, instead of mere recitations of facts and methods, necessary as these are and faithfully as they are given. It is alive with the vigor and restlessness of modern medical progress. The make-up is fairly good. The photo-engravings illustrate and teach how intubation is done.

SPEECH HESITATION. By E. J. ELLERY THORPE. E. S. Werner Publishing & Supply Company, New York.

MRS. THORPE's book treats the subject of speech hesitation as a fault that is in practically all cases amenable to correction. So many of these cases seem hopeless and their infirmity inflicts such a degree of suffering that attention can not be called too often to possibilities of cure under proper methods of respiratory regulation. Some of the cases that have been im-

proved by the method suggested here are sufficiently striking to encourage further trials to cure no matter how hopeless the case may seem. There is, of course, a large personal element in any successful method of treating these cases, but valuable points can be gathered from others' experience by those who are interested in the subject and hence the usefulness of this manual.

PHYSICAL DIAGNOSIS OF DISEASES OF THE CHEST.
By RICHARD C. CABOT, M.D., Assistant in Clinical Medicine Harvard Medical School. William Wood & Co., New York.

DR. CABOT's purpose in writing this book is expressed very tersely in the preface as follows: "I have written it because I have not been able to find any small work upon the subject which does not contain glaring errors. The correct books are too large. The small books are out of date and repeat such well worn myths as that the aortic second sound is normally louder than the pulmonic sound; that aortic regurgitant murmurs are usually best heard in the second right interspace, that the hypertrophied left auricle can produce dulness and pulsation near the left sternal border, that systolic retraction at the cardiac apex means adherent pericardium, that episgastric pulsation denotes hypertrophy of the right ventricle, etc."

It is clear from this that Dr. Cabot intends his book to be up to date, and it is. For a manual the illustrations are well chosen, though we can hardly say that they are fittingly reproduced. In general the book is very clearly and succinctly written. There is a taking suggestiveness about the style that fits it for the student. Without any appearance of piling up erudition a large amount of valuable practical medical knowledge is conveyed.

GUY'S HOSPITAL REPORTS. Vol. LIV. being Vol. XXXIX. of the Third Series. J. A. Churchill, Great Marlborough Street, London, 1900.

ONE can always be sure of finding good things in the Annual Report of Guy's. This time Dr. Frederick W. Taylor has a very interesting article on spleno-megalic cirrhosis of the liver. As this involves a discussion of the pigmentation of the skin in hepatic disease and also the significance of the stunting of growth which often causes club fingers, its interest can be understood.

Dr. W. Hale White devotes fifty pages to a discussion of diseases of the pancreas. This sums up very well our present knowledge of these obscure conditions and shows how much has been accomplished in very recent years to throw light upon this neglected organ and its affections.

Dr. G. E. Halstead has an article on "Some points in the treatment of acute infantile diarrhea with some hints for the young practitioner," that is very helpfully suggestive. This from the end of the article is good: "At the close of a series of lectures on the use of acids and alkalies

an intelligent student went down to the lecturer's table and quietly asked, 'But, Dr. M., when would you give acids and when would you give alkalies in stomach trouble?' Dr. M.'s reply was: 'Mr. W. if you have really followed my lecture as closely as you appear to have done you will have perceived that I am quite unable to tell you.'"

Dr. Halstead's summary of the treatment of infantile diarrhea is: "Diarrhea is due to something in the diet. Empty the bowels and keep them cleansed, preferably by castor oil. Energetically treat the collapse and do not trouble about the number of motions. Do not stop up the bowels by astringents and opiates. Give hardly any food for a few days, begin with white of egg solution in teaspoonful doses every half hour. If the baby is too hot, cool it. If it is too cold, warm it. If it is thirsty and not sick, give it water. Keep it in the fresh air all day long."

THE PREVENTION OF VALVULAR DISEASE OF THE HEART. By RICHARD CATON, M.D., Emeritus Professor of Physiology, University College, Liverpool. C. J. Clay & Sons, London.

THE author says in the preface that valvular disease of the heart has always been and still remains one of the opprobria of medicine. His object here has been "to promote the detection of the malady in an early stage, to study the commencing pathological changes, to investigate the manner in which in a few cases a natural arrest of the disease is brought about, and to seek by artificial means to render this arrest in the early stage usual rather than exceptional." On these very interesting themes he has made an extremely suggestive book.

The methods of treatment employed by the author are first absolute rest when the heart lesion is recent. This he considers the most essential therapeutic measure. Second, treatment by stimulation of trophic centers. This is done by counter irritation over the precordia. The third measure is the use of absorbent drugs. Of these sodium iodide is given the preference. By these means the author has accomplished certain definite results in eighty-six recent cases. His results include a number of cases in which heart murmurs with some functional symptoms of organic heart disease disappeared during the course of the treatment. The book bears the stamp of serious practical clinical work and deserves the careful study of those who are interested in the cure of heart diseases.

THE ART OF BREATHING AS THE BASIS OF TONE PRODUCTION. By LEO KOFLER. E. S. Werner Publishing & Supply Co., New York, 1900.

THIS little book of 250 odd pages is of interest to the physician for two reasons. First, because it treats the subject of faulty articulation from the standpoint that it is curable by the proper management of the breathing. Lisping and stuttering while dependent very often on congenital defects can be overcome by proper training.

Hints as to how this training should be instituted are here given in a very practical way. The second medical interest in the book comes from the fact that so many people can, or think they can, sing. Many singers adopt an entirely faulty method of tone production and this is the basis of many a form of chronic laryngitis. The question of the proper method of tone production as it is treated here in practical fashion by Mr. Kofler, who is the organist and choir-master of St. Paul's Chapel in New York City, can scarcely fail to be helpful to the general practitioner who has such patients to treat.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of the Practice of Medicine and of Clinical Medicine in the Medico-Chirurgical College, Philadelphia. Fourth Edition. W. B. Saunders & Company, Philadelphia and London.

CONCISENESS, clearness and systematic arrangement combined with accuracy, make a work on medicine a favorite with both the busy practitioner and the student. And it is perhaps these qualities that have required a new edition of this book within a year. The author has culled much of his material from other writers, has boiled it down and sorted it out, and to it has added ideas and criticisms of his own. The section on Diseases of the Digestive System has been extended and brought into line with what recently introduced methods of diagnosis have taught us. Sprue, ileo-colitis in children, and acute cholecystitis have been entirely rewritten, and the animal parasitic diseases, intoxications and other chapters have been revised. Historical matter is omitted and treatment is outlined in a brief but efficient manner. Quantities are given in both the English and the metric system, the latter suffering from a too literal translation, which makes the figures sometimes impracticable for prescription writing. Compactness enables the author to get a great amount of valuable matter into a single volume.

CANCER OF THE STOMACH, A CLINICAL STUDY. By WILLIAM OSLER, M.D., and THOMAS McCRAE, M.B. (Tor.), of the Johns Hopkins Hospital. P. Blakiston's Son & Co., Philadelphia.

THIS is the fourth of that delightful series of special works begun by William Osler, the preceding ones of which are on angina pectoris, abdominal tumors, and chorea. The authors have made a detailed study of 150 cases at the Johns Hopkins Hospital diagnosed as cancer of the stomach. In the etiology an interesting relation is shown with tuberculosis and the use of alcohol, while previous stomach trouble is found to render an individual not more prone to cancer. The occurrence of the disease in the young, latent cancer, and the blood examinations form chapters which have already been published in brief in the journals, but the greater portion of the book is devoted to a study of the tumor and its symptoms. Vomiting, pain, loss of weight

and strength, the condition of the various organs, the examination of stomach contents, and the secondary symptoms such as metastases, perforation, jaundice, ascites, and edema are all considered in detail. There is a chapter on pathology, and one on treatment, the latter of which is particularly concise and satisfactory. The book should be in the library of every physician and surgeon. The illustrations add to the value of the work.

HERNIA. ITS ETIOLOGY, SYMPTOMS AND TREATMENT. By W. MCADAM ECCLES, M.S. (Lond.), F.R.C.S. (Eng.). Wm. Wood & Co., New York.

INGUINAL and femoral herniae are chiefly considered in this volume, the other forms, e.g., umbilical, ventral, obturator, sciatic, etc., being dismissed with a very brief description.

The etiology of hernia is given at some length, some of its causes being ascribed to heredity, age, sex, and form, length and prolapse of mesentery. The clinical conditions of hernia are divided into reducible, irreducible, inflamed, obstructed and strangulated. The symptoms of all these conditions are carefully noted and in the case of all reducible herniae, the treatment by truss is given in every detail. A form of truss is even advised in certain cases of irreducible hernia. Strangulated hernia receives considerable attention, particular emphasis being laid upon the symptoms and diagnosis. Prolonged taxis is discountenanced and early operation is advised; a radical operation should be done if the strangulated area can be replaced in the abdomen and the condition of the patient will allow of it. The radical operation advised in cases of inguinal hernia leaves the cord in the inguinal canal. The aponeurotic fibers of the external oblique are divided up to the internal ring, the sac tied off flush with the peritoneum and the internal oblique and transversalis united to the inner half of Poupart's ligament. Buried sutures of silk are used.

The operations of Bassini and Halstead, so popular in this country, are accorded only a few lines for their description.

Femoral hernia is well described and its palliative and operative treatment indicated. In fact the whole volume deals principally with the palliative treatment by truss.

BOOKS RECEIVED.

MUTTER LECTURES. 1900. By Dr. John B. Roberts. 12mo, 53 pages. Illustrated. Philadelphia.

THOMAS SYDENHAM. By Dr. Joseph Frank Payne. Masters of Medicine Series. 8vo, 264 pages. Illustrated. Longmans, Green & Co., New York.

APPENDICITIS AND ITS SURGICAL TREATMENT. By Dr. Herman Mynter. Third Revised Edition. 8vo, 231 pages. Illustrated. J. B. Lippincott Company, Philadelphia and London.